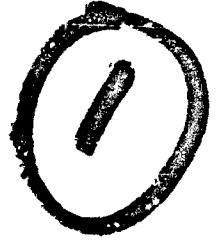
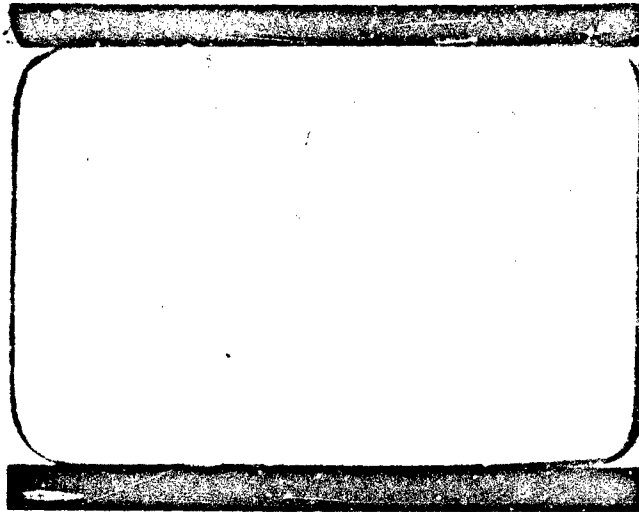


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GENERAL INFORMATION.
Volume VIII.
Instrumentation System Airborne Difficulties
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*VOLUME II	ABORT SENSING AND IMPLEMENTATION SYSTEM
VOLUME III	AUTOPILOT
*VOLUME IV	AUXILIARY POWER SOURCE
VOLUME V	ELECTRICAL
*VOLUME VI	GUIDANCE
VOLUME VII	HYDRAULICS
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VOLUME XI	PROPULSION INTERFACE
VOLUME XII	PROPULSION
VOLUME XIII	RANGE SAFETY COMMAND

***VOLUMES II, IV AND VI UNDER ONE COVER.**

GENERAL INFORMATION

The Difficulties Review encompasses problems gathered from the factory, the field, (ETR and WTP) and UTP. The factory difficulties are limited to "sell-off" and rerun composite testing.

In the UTP area, the difficulties were excerpted from Central Test Control Reports, Problem Reports, Supplementary History Sheets and Problem Review Reports.

Field problems for the Difficulties Review have been limited to captive flights, flight readiness firings, actual countdown dual propellant loading, quad tanking, component reliability testing, and flight acceptance composite tests. Difficulties called out in the search for critical weakness program was not documented.

GSE problems shall be limited to ETR Complex 12, 13, 36A and 36B for the present edition. Hereafter only booster difficulties shall be maintained.

Failure analysis reports cover difficulties from the field and factory and may complement the information above.

The GSE Difficulties Review, Book 1 contains 14 Volumes, one volume for each system, under one cover. Each volume is appropriately indexed.

The Airborne Difficulties Review, Book 2 contains 13 volumes. Each volume is under separate cover except Volumes II, IV and VI. Volumes II, IV, and VI are under one cover because of the limited material contained in each volume. All volumes are appropriately indexed.

A guide to facilitate interpretation of data in the Difficulties Review (GSE and Airborne) is part of each book or volume.

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GENERAL DYNAMICS
Convair Division

Subject: Explanatory Information For Use of Difficulties Review (DR)
Data Tab Runs

This information has been prepared to facilitate use of the DR. It is not intended to describe how the DR was prepared nor the scope of the existing effort.

The Difficulties Review (DR) is presented on a form compatible with automated data processing and printout.

Appearing at the top of the page (outside of blocked-in areas) is the identification of the system and whether it is Airborne or Ground Support Equipment. Appearing with this identification is the date of the document and the page number.

On the right hand side outside of the blocked area, appears the abstract number. An abstract number is assigned to each item of the Difficulty Review to facilitate traceability to the original input document.

Appearing under the major identification are blocks wherein the information on component or system difficulty is identified and explained. Attached are samples of pages coded for reference to the following definitions and explanations:

CODE

EXPLANATION

①

This group of blocks callout system, subsystem, test/report number, failed component name, difficulty (Dif) data source, and GDC part number if applicable. Also called out here is the vehicle number, if applicable, and the date of difficulty.

In the same row, the site location, and in case of a flight, captive flight, or countdown, the time will be entered.

The block containing PRI and OTH refer to whether or not the failure is primary or a secondary failure. A secondary failure is to be interpreted as caused by another discrepancy.

The last block in this row is obvious and requires no further explanation:

②

Refers to a major system of the launch vehicle.

③

Refers to subsystem of a major vehicle system if applicable, (Booster, sustainer, etc).

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<u>CODE</u>	<u>EXPLANATION</u>
(4)	Is a report number as opposed to type of report, (UTP, Countdown, Flight, FAR, etc.).
(5)	Is a type of report, such as a FAR, UTP, FRF, etc.
(6)	Refers to a component part by name.
(7)	Is a component piece part of the component and referred to by name, (plug, seal, wiring, diode, etc., only where applicable).
(8)	Is a GDC part number, if applicable.
(9)	Refers to a site or location at time of discrepancy on the component or vehicle system.
(10)	Is the vehicle on which discrepancy occurred. Vehicle number listed only if unit was installed on a vehicle at time of discrepancy.
(11)	Is the vendor part number, if applicable.
(12)	Is the vendor name, if applicable.
(13)	Is the failure caused by other component or other system. This item defines the failure as secondary or not secondary.
(14)	<p>Refers to the primary failure. If item is labeled <u>no</u>, then item (13) may appear as a <u>yes</u>.</p> <p>Should item (13) appear as a <u>yes</u>, then an abstract will have been written to identify the cause of failure affecting the component referred to in the Difficulty Review, Item 6. It should be noted that a multiple failure may be recorded in these blocks, (yes/yes), or if a failure did not occur, (no/no).</p>
(15)	Defines the failure mode, and if identifiable, the cause is called out. A careful review of the failure mode is made to determine effect on system operation and vehicle effort.

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EXPLANATION

(16)

Defines the system effect. This effect is the result of the failure mode assigned to the component.

(17)

Defines the vehicle effect. This effect is a result of the failure mode and the result of the system effect.

It should be noted that corrective action may be taken whether or not the failure was confirmed.

(18)

Lists the corrective action. Taken by GDC, the vendor, or both.

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DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI VENDOR NAME OTM VENDOR PART NO
HYDRAULIC-A/B BOOSTER	27A3977 HYDRAULIC PUMP	UTP-PRT 27-08988-1	641289	CONVAIR	YES VICKERS NO AA-60884-R-2A
					087093
					087094
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					087098
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DIFFICULTIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OIM	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-BOOSTER HYDRAULIC FILL AND BLEED PERFORMED.						
HYDRAULIC-A/G BOOSTER	FTA687/P8-WO-01-QAC8	COMPOSITE-FRD/DPL	1310 850713	368	NO NO	897607
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. TEST WAS RUN WITHOUT BOOSTER HYDRAULICS BECAUSE BOOSTER MPU COULD NOT BE OPERATED REMOTELY. THIS WAS NOTED DURING AUTOPILOT FINAL CHECKS.						
SYSTEM EFFECT-OPERATION DOES NOT START.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-BOOSTER MPU HAND VALVE, MICROSWITCHES VS AND VE ADJUSTED TO MAKE WIPER CONTACT.						
HYDRAULIC-A/B BOOSTER	GDC/BKFS-048/DI-401-CD-39	FLIGHT	380 850701	B-1 -32.5	YES NO	897144
FAILURE MODE-LEAK. B1 HYDRAULIC ACCUMULATOR PRESSURE EXHIBITED NO PRESSURE DIFFERENCE DURING THE OIL EVACUATION SEQUENCE.						
SYSTEM EFFECT-POSSIBLE CONTAMINATION. ALTHOUGH THE FAILURE MODE INDICATES THE POSSIBILITY OF AIR IN THE BOOSTER HYDRAULIC SYSTEM, SYSTEM PERFORMANCE WAS SATISFACTORY.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE. THE POSSIBILITY OF CONTAMINATION WAS NOT CONFIRMED BY ANY OTHER TELEMETRY DATA.						
HYDRAULIC-A/B BOOSTER	GDC/BKFS-038/82-401-00-177	FLIGHT	1770 850803	B-2 2.3	NO NO	897320
FAILURE MODE-OUT OF TOLERANCE. BOOSTER HYD ACCUM. PRESS MEASUR. H33P AND HYD. PUMP OUTLET PRESS. MEASUR H3P INDICATED AN INITIAL NORMAL PRESS. RISE BUT TO A LOWER (1310 PSIA) THAN NORMAL (1300 PSIA) PEAK AT 2.3 SEC. THE PRESS. THEN DECAYED TO 8780 PSIA DURING NEXT 1.5 SEC. SPECIFIC CAUSE UNKNOWN BUT SYMPTOMATIC OF UNUSUALLY HEAVY DEMAND ON SYSTEM.						
SYSTEM EFFECT-OPERATION TOO LOW. BOOSTER HYDRAULIC PRESS. LOWER THAN NORMAL FOR A TIME PERIOD OF -2.3 SEC TO 1.5 SEC. NO ADVERSE EFFECT NOTED ON SYSTEM PERFORMANCE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE.						
HYDRAULIC-A/B BOOSTER	GDC/C22M85-013-BA1847-/L4-7MO-01-71	COMPOSITE-FRD/DPL	7107 850418	2-4	YES NO	897418

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B	AC61-1108/P3-501-00-32	FLIGHT	32E 811110	13 -1	YES NO	097286
FAILURE MODE-NONE.						
SYSTEM EFFECT-NONE--VES VEHICLE EFFECT-PREATURE SUSTAINER ENGINE SHUTDOWN. THE INCORRECT INSTRUMENTING OF THE SUSTAINER LOX REGULATOR CAUSED THE REGULATOR TO STARVE THE 866 OF LOX WHICH RESULTED IN 66 FLAMEOUT AND LOSS OF SUSTAINER THRUST. MISSILE DESTROYED AT 34 SECONDS BY RANGE SAFETY OFFICER.						
VEHICLE EFFECT-PREATURE SUSTAINER ENGINE SHUTDOWN. THE INCORRECT INSTRUMENTING OF THE SUSTAINER LOX REGULATOR CAUSED THE REGULATOR TO STARVE THE 866 OF LOX WHICH RESULTED IN 66 FLAMEOUT AND LOSS OF SUSTAINER THRUST. MISSILE DESTROYED AT 34 SECONDS BY RANGE SAFETY OFFICER.						
CORRECTIVE ACTION-RE-WORK PRINT TO ENSURE PORT 603 IS UTILIZED.						
INSTRUMENTATION-A/B	88-24-083 SHUTTLE VALVE O RING	FAR 27-01279-1	910100	ETR	YES CIRCLE SEAL NO PS-425	098899
FAILURE MODE-INTERNAL LEAK. NUMEROUS VALVES LEAKED WHEN PRESSURE WAS APPLIED. ON DISASSEMBLY ALL OF THE VALVES WERE FOUND TO HAVE THE SPOOL SEALING O RING CLOSEST TO THE SYSTEM PORT. BADLY CUT, AND IN SOME CASES PIECES WERE MISSING. DURING ACTUATION THE FORWARD O RING CATCHES IN THE TRANSDUCER PORT AND IS THEN CUT BY THE SPOOLS BACKUP SHOULDER.						
CORRECTIVE ACTION-THE VENDOR HAS REDESIGNED THE VALVE TO INCORPORATE AN ANNULAR BORE RELIEF VALVE AT THE INTERSECTION OF THE TRANSDUCER PORT TO PREVENT CONTACT OF THE O RING WITH THE BORE AS IT PASSES THE TRANSDUCER PORT.						
INSTRUMENTATION-A/B	88-24-083 VALVE-O-RING	FAR 27-01279-1	900900	ETR	YES JAMES POND CLA NO RK	094414
FAILURE MODE-LEAK. VALVE LEAKED HYDRAULIC OIL WHEN IN THE OPERATING POSITION. FRONT O-RING ON THE POPPET WAS CUT. THE VALVE HOUSING WAS CUT OPEN. THE TRANSDUCER PORT WAS NOT FULLY CHAMFERED AND BURRS WERE LEFT ON THE PORT EDGE. O-RING FAILURE WAS DUPLICATED ON THE FIRST ACTUATION WITH NEW O-RING INSTALLED. ROTATION OF THE POPPET UPON VALVE ACTUATION CAUSED THE O-RING TO BE CUT.						
CORRECTIVE ACTION-ALL TEST PROCEDURES HAVE BEEN MODIFIED TO INCLUDE, (1) THE VALVE MUST NOT BE ACTUATED WITH A PRESSURE GREATER THAN 10 PSI ON THE SYSTEM PORT. AN O-RING IS BEING INSTALLED UNDER THE DUST CAP ON THE CALIBRATION PORT TO PREVENT LOSS OF PRESSURE WITH SUBSEQUENT LOSS OF TELEMETERED DATA. ALL VALVES IN THE VENDOR STOCK WILL BE MODIFIED TO INCLUDE INCREASED CHAMFER ON THE TRANSDUCER PORT.						
INSTRUMENTATION-A/B	PS-7CD-04-8001 TRANSDUCER	COMPOSITE-B FACT	5001 800303	ETR12	YES NO	
FAILURE MODE-MEASUREMENT FLIESP WAS ERRATIC.						
SYSTEM EFFECT-NONE-LOSS OF SINGLE MEASUREMENT ONLY.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-TRANSDUCER WAS REPLACED.						
INSTRUMENTATION-A/B LAND LINE	60C/BKFR-007 TRANSDUCER	FLIGHT 87-01897-7	7119 880819	PALC8-4 -8	YES NO	
FAILURE MODE-FAIL DURING OPERATION. MEASUREMENT F188T FAILED DURING THE INITIAL RISE OF THE ENGINE START SEQUENCE.						
SYSTEM EFFECT-NONE-LOSS OF THE AFFECTED MEASUREMENT ONLY.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-OPEN-THIS VEHICLE INCORPORATED ECP 3503 IN AN ATTEMPT TO CORRECT THIS REPETITIVE FAILURE. A STUDY IS BEING MADE OF CURRENT AND PREVIOUS FAILURE CHARACTERISTICS.						
INSTRUMENTATION-A/B LAND LINE	2LV-90-84-3245-F TRANSDUCER, LANDLINE	FAR 89-01803-13	71-01 841229	MTR	YES BOURNS NO	800423
FAILURE MODE-CONTAMINATION. HYSTERESIS INCREASED WITH REPEATED LANDLINE CALIBRATION RUNS. FAILURE WAS ATTRIBUTED TO GROSS CONTAMINATION IN THE BALL SOCKET WHICH WOULD CAUSE STICKY BALL-IN-SOCKET MOVEMENT, RESULTING IN ERRATIC MOVEMENT OF THE WIPERARM OVER THE MANORREL. MEAS F188P.						
CORRECTIVE ACTION-VENDOR IS TAKING ACTION TO PRECLUDE THE POSSIBILITY OF FUTURE CONTAMINATION PROBLEMS.						
INSTRUMENTATION-A/B LAND LINE	60/CBKFR-0234-701-UG-7101 TRANSDUCER - LANDLINE	FRF	7101 840619	8-4	YES NO	800423
FAILURE MODE-STRUCTURAL - DIFFERENTIAL PRESSURE TRANSDUCERS WERE OVER PRESSURIZED AT ENGINE TANKS PRESSURIZATION DUE TO THE WATER HAMMER EFFECT AT THE INITIAL PRESSURE SURGE.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-COMPOSITE DELAYED AND RESCHEDULED. IT WAS DECIDED LATER TO REMOVE THIS INSTRUMENTATION AND CONDUCT THE FIFTEEN FOLLOWING DAY WITH OUT IT.						
CORRECTIVE ACTION-NONE - CONDUCT TEST WITHOUT VERNIER FLOW RATE INSTRUMENTATION.						

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DIFFICULTIES REVIEW-INS. AMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B LAND LINE	8KFA-011/P2-403-00-263 LANDLINE TRANSDUCER	COUNTDOWN	2630 840413	ETR -2400	YES NO	093100
FAILURE MODE-FAIL DURING OPERATION. AIRBORNE TRANSDUCER WAS FAULTY. SYSTEM EFFECT-NONE. VEHICLE EFFECT-COUNTDOWN DELAYED. 10 MINUTE HOLD REQUIRED TO REINSTALL SUBSTAINER BOOT AFTER TROUBLE SHOOTING THE FAULTY TRANSDUCER. CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B LAND LINE	FAR-LV-80-24-4216 PRESSURE TRANSDUCER	FAR 95-01107-83	2240 830827	2-3	YES COLVIN NO 401-6-4-73	093210
FAILURE MODE-STRUCTURAL. THE TRANSDUCER (MEASUREMENT FIDDIPI) FAILED WHEN IT HAD NO VOLTAGE OUTPUT AT ANY APPLIED PRESSURE FROM 0 TO 40 PSIG. THE FAILURE WAS DUE TO THE WIPER ARM LEAD BEING BROKEN AT THE INTERNAL LUG SOLDER JOINT. LOOSE WINDINGS AND LOW-STRENGTH SOLDER JOINTS WERE ALSO PREVALENT. CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN BECAUSE VENDOR CORRECTIVE ACTION REQUEST 4815-83 DATED 830815 AND VCAR 4889-83 DATED 830823 WERE RECEIVED FROM THE VENDOR ON SIMILAR FAILURES ADVISING IN HOUSE CORRECTIVE MEASURES ARE BEING TAKEN.						
INSTRUMENTATION-A/B LAND LINE	HC-AS-24-3253-F PRESSURE TRANSDUCER	FAR 7-01729-5	1440 830215	FACTORY	YES BOURNS NO 73311-0-35-752	091910
FAILURE MODE-CONTAMINATION. TRANSDUCER SHOWED ERRATIC OPERATION AT HIGH END OF PRESSURE RANGE. FAILURE ATTRIBUTED TO A FIBER IMBEDDED IN THE POTENTIOMETER WINDINGS. THIS WAS PROBABLY DUE TO INSUFFICIENT AND/OR IMPROPER CLEANING AFTER POTTING. CORRECTIVE ACTION-PROGRAM FOR THE ELIMINATION OF POSSIBLE CONTAMINATION SOURCES IS BEING IMPLEMENTED EFFECTIVE 15 MAR 63.						
INSTRUMENTATION-A/B LAND LINE	8P-98-24-3230 TRANSDUCER, LANDLINE	FAR 7-01729-11	1160 830127	ETR	YES BOURNS NO 42013-0-30-738	
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER FOR MEASUREMENT FIDDIPI INDICATED 9.8 PSIA WHEN 8 PSIA WAS EXPECTED. APPARENTLY EXCESSIVE PRESSURES WERE APPLIED TO THE TRANSDUCER, CAUSING A STRETCHED BELLONS AND A HIGH OUTPUT. CORRECTIVE ACTION-FIELD PERSONNEL WERE INFORMED OF THE APPARENT OVERPRESSURIZATION AND THAT AN INVESTIGATION SHOULD						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
BE MADE TO DETERMINE IF THIS IS THE CASE.						
INSTRUMENTATION-A/B LAND LINE	AE 92-0421/P8-402-00-F1 TRANSDUCER-LANDLINE	COUNTDOWN	104D 820308	ETR 5100	YES NO	
FAILURE MODE-ERRATIC OPERATION. ERRATIC PRESSURE INDICATIONS ON THE LANDLINE MEASUREMENT OF THE SUSTAINER LOX REFERENCE REGULATOR PRESSURE.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COUNTDOWN DELAYED. EXTENT OF DELAY, 91 MINUTES.						
CORRECTIVE ACTION-DELETED REDLINE REQUIREMENT. REGULATOR WAS CHANGED DURING INVESTIGATION WHICH SHOWED TRANSDUCER TO BE CAUSE OF PROBLEM.						
INSTRUMENTATION-A/B LAND LINE	AAS2-0067/P8-402-00-F1 TRANSDUCER-LANDLINE	COUNTDOWN 7-01723-13	104D 820411	ETR/36 -20	YES CEC NO 4-380AMA-100A	
FAILURE MODE-OUT OF SPECIFICATION. LAUNCH ATTEMPT TERMINATED WHEN LOX TANK HELIUM PRESSURE FELL BELOW REDLINE VALUE OF 89.3 PSIG TO 89.3 PSIG. SUBSEQUENT TESTS SHOWED LOX TANK PRESSURE TRANSDUCER WAS 0.9 PSIG BELOW ACTUAL VALUE FAILURE ALSO DOCUMENTED IN REPORT A62-0421/P8-402-00-F1.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. READING GIVEN BY TRANSDUCER WAS NOT TRUE VALUE DUE TO CALIBRATION DISCREPANCY.						
VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED.						
CORRECTIVE ACTION-LOX AND FUEL TANK PRESSURE TRANSDUCERS REPLACED. DIRECT PRESSURE CALIBRATION PROCEDURE INSTITUTED FOR CRITICAL MEASUREMENTS IN LIEU OF USING LAB CALIBRATION CURVES. (FAR 9P-28-24-280)						
INSTRUMENTATION-A/B LAND LINE	AES0-0340/P1-401-00-66 COAXIAL CABLE CONNECTOR	COUNTDOWN	66D 800782	ETR-11 -4200	YES NO	
FAILURE MODE-ERRATIC OPERATION. WATER IN SUSTAINER RCC ACCELEROMETER CONNECTOR.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B LAND LINE	AES0-0322/P8-402-00-66 HARNESS	COUNTDOWN	66D 800518	ETR-12 -1.82	YES NO	
FAILURE MODE-FAIL DURING OPERATION. MALFUNCTION IN RCC CIRCUITRY.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-ERRATIC OPERATION.							998299
VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B LAND LINE	98-24-036 TRANSDUCER, LANDLINE	FAR 7-01649-7	290 800100	ETR	YES NO	ROSEMOUNT 134AN	991642
FAILURE MODE-OUT OF SPECIFICATION. TRANSDUCER FOR MEASUREMENT PIDBIT WAS REJECTED PRIOR TO INSTALLATION DUE TO CIRCUMFERENTIAL PITTED HOLES ON THE ELEMENT SHIELD APPROXIMATELY ONE INCH FROM THE BOSS THREADS. THE HOLES WERE IN SOLDER WHICH WAS MELTED, REVEALING AN AREA APPROXIMATELY ONE INCH LONG WHEREIN WAS FOUND A NUMBER 18 GAUGE WIRES WRAPPED TIGHTLY IN A MACHINED CIRCUMFERENTIAL GROOVE APPROXIMATELY 1/8 INCH DEEP. THE HOLES DID NOT AFFECT OPERATION, BUT IS A MANUFACTURING DISCREPANCY.							
CORRECTIVE ACTION-ALL TRANSDUCERS OF THIS TYPE WILL BE INSPECTED UNDER A MICROSCOPE PRIOR TO ACCEPTANCE TO DETECT THIS TYPE OF MANUFACTURING DISCREPANCY.							
INSTRUMENTATION-A/B LAND LINE	98-24-030 TRANSDUCER, LANDLINE	FAR 7-01720-9	591100	ETR	YES NO	SERVONIC INSTRUMENTS, INC	992079
FAILURE MODE-INTERNAL LEAK. TRANSDUCER FOR MEASUREMENT FIBDIP INDICATED OSCILLATIONS OF THE OUTPUT AND INTERNAL LEAKAGE. THE OSCILLATIONS WERE CAUSED BY THE INTERNAL LEAKAGE WHICH IN TURN RESULTED FROM AN IMPROPER WELDING AT THE CONNECTION OF THE BOURDON TUBE AND POTENTIOMETER WIPER ARM.							
CORRECTIVE ACTION-THE VENDOR IS IMPROVING QUALITY CONTROL PROCEDURES RELATIVE TO IMPROPER WELDING.							
INSTRUMENTATION-A/B LAND LINE	81-414-C7-09 TRANSDUCER-LANDLINE	CAPTIVE	90 590909	91 2.05	YES NO		999634
FAILURE MODE-CONTAMINATION. SUSTAINER LUBE OIL PRESSURE DID NOT INCREASE AT ENGINE START. THIS WAS BELIEVED CAUSED BY A PLUGGED INSTRUMENTATION SENSE LINE.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-PREATURE PROPULSION CUTOFF- OBSERVER CUTOFF WHEN SUSTAINER LUBE OIL PRESSURE DID NOT MEET REDLINE REQUIREMENT (BELOW LOWER LIMIT).							
CORRECTIVE ACTION-LUBE OIL SYSTEM WAS PURGED. NO CONTAMINATES WERE FOUND ALTHOUGH BLOCKAGE WAS NOTED PRIOR TO BLOWDOWN.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B LAND LINE	98-24-027 TRANS/D/CER, LANDLINE	FAR 7-01649-7	890800	ETR	YES NO	YES ROSENHOUT NO
<p>FAILURE MODE-FAIL DURING OPERATION. SIX TEMPERATURE TRANSDUCERS MEASURING P1021T FAILED TANKING TESTS FOR DIFFERENT REASONS. TWO DUE TO AN INTERNAL SHORT TO GROUND, ONE HAD NO RESPONSE, TWO HAD OPEN CIRCUITS AND ONE HAD NO CONTINUITY. THE INTERNAL SHORTS WERE CAUSED BY BROKEN AND FRAYED WIRES MAKING CONTACT WITH THE OUTER PROTECTIVE CASE. THE NO-RESPONSE FAILURE COULD NOT BE CONFIRMED. THE OPEN CIRCUITS WERE CAUSED BY WIRES BROKEN DIRECTLY IN LINE WITH THE HOLES IN THE PROTECTIVE SHIELD. THE NO-CONTINUITY FAILURE WAS CAUSED BY BROKEN AND BENT WIRES DIRECTLY IN LINE WITH HOLES IN THE PROTECTIVE SHIELD. THE BROKEN WIRES RESULTED FROM HIGH FLOW RATE CONDITIONS.</p> <p>CORRECTIVE ACTION-A NEW TRANSDUCER ELEMENT HAS BEEN DESIGNED AND IS IN PRODUCTION. THIS NEW ELEMENT EMPLOYS A CERAMIC COATING OVER THE PLATINUM WIRE ELEMENT TO PREVENT FAILURE FROM THE HIGH FLOW CONDITIONS.</p>						
INSTRUMENTATION-A/B LAND LINE	82-412-86-03 LANDLINE TEMPERATURE PROBE	CAPTIVE	2D 890800	82	YES NO	
<p>FAILURE MODE-STRUCTURAL. TEMPERATURE PROBE INSTRUMENTING SUBTAINER TURBINE TEMPERATURE CAME OUT OF THE BOSS, THEREBY PERMITTING HOT GAS TO ENTER THE THRUST SECTION.</p> <p>SYSTEM EFFECT-NONE.</p> <p>VEHICLE EFFECT-NONE. ENGINE COMPARTMENT TEMPERATURE DATA DID NOT INDICATE A TEMPERATURE INCREASE.</p> <p>CORRECTIVE ACTION-INSTALL NEW PROBE.</p>						
INSTRUMENTATION-A/B LAND LINE	89-24-023 TRANS/D/CER, LANDLINE	FAR 7-01750-5	2D 890316	SANDIEGO	YES NO	YES SERVONIC INSTRUMENTS INC
<p>FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. LANDLINE TRANSDUCER PRESSURE READ 200 PSI LOW AT MAXIMUM INPUT PRESSURE. FAILURE WAS CAUSED BY THE BOURDON TUBE. ASSEMBLY SHIFTING FROM THE ZERO PRESSURE REFERENCE POINT. SHIFTING OF THE TUBE ASSEMBLY CAUSED THE POTENTIOMETER WIPER ARM TO BE AT SOME POINT OTHER THAN ZERO WITH NO PRESSURE APPLIED AND OFF THE WINDINGS WITH HIGH PRESSURE APPLIED.</p> <p>CORRECTIVE ACTION-THE INSTALLATION DRAWING IS BEING CHANGED TO INCLUDE CAREFUL HANDLING PROCEDURES. THE DESIGN IS BEING CHANGED TO ADD AN ADDITIONAL SET SCREW TO HOLD THE BOURDON TUBE ASSEMBLY MORE SECURELY TO THE ZERO PRESSURE REFERENCE POINT.</p>						
INSTRUMENTATION-A/B LAND LINE	PTA328/P1-205-00-09 LANDLINE-TRANSDUCER	COUNTDOWN	98 891114	ETR-11 -3300	NO NO	
<p>FAILURE MODE-OUT OF SPECIFICATION. TRANSDUCER INDICATED PU VALVE WAS OPEN WHEN IT WAS CLOSED.</p>						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTM	VENDOR NAME VENDOR PART NO
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. POTENTIOMETER KNOB OF TRANSDUCER TURNED IN ERROR BY OBSERVER. SAVE OPEN PU VA VEHICLE EFFECT-NONE. CORRECTIVE ACTION-READJUSTED POTENTIOMETER.						
INSTRUMENTATION-A/B LAND LINE	EN-839/108-84-09 866 CHAMBER TEMPERATURE THERMOCOUP LE	CAPTIVE	9A	8-1	YES NO	090803
FAILURE MODE-FAIL DURING OPERATION. INSTRUMENTATION THERMOCOUPLE STEMS SHEARED OFF AND ENTERED THE TURBINE HOUSINGS SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-INDIVIDUAL TURBINE INLET TEMPERATURES WERE INSTRUMENTED FOR SUBSEQUENT TESTS.						
INSTRUMENTATION-A/B POWER SOURCE	39C4348 BATTERY RSC AND TLM	UTP-PRT 89-04308-1	880187		YES YARDNEY ELEC C O 61083	090843
FAILURE MODE-BATTERY FAILED TO MAINTAIN PRESSURE DROPPED FROM 49816 TO 09816 IN 3 SECONDS. BATTERY COVERS COULD NOT BE ATTACHED CORRECTLY DUE TO INTERFERENCE BETWEEN RUBBER STRIPS ON THE REVERSE SIDE OF THE COVER AND THE CELL VENT TRAPS. CORRECTIVE ACTION-ALL BATTERIES IN LOT RETURNED TO VENDOR FOR REWORK FOLLOW UP ACTION FOR FUTURE DELIVERY IS DOCUMENTED IN LARR 8040 DATED 88/02/28.						
INSTRUMENTATION-A/B POWER SOURCE	SLV-9D-84-3034-F BATTERY	FAR 89-04308-1	830819	WTR	YES WHITTAKER NO	091071
FAILURE MODE-CONTAMINATION. ONE CELL OF THE MANUALLY ACTIVATED TELEMETRY BATTERY WAS FOUND TO BE LEAKING GASEOUS NI TROGEN WHEN PRESSURIZED. LEAKAGE FOUND DUE TO CONTAMINATION OF THE FILL NECK, AND/OR FAULTY ACTIVATOR. CORRECTIVE ACTION-FILL NECK WAS CLEANED AND CONCERNED PERSONNEL WERE ADVISED TO EXERCISE EXTREME CARE TO ASSURE CLE AN FILL NECKS ON SUBSEQUENT VEHICLES.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO.	
INSTRUMENTATION-A/B POWER SOURCE	MSCAPE130/P48-CO-06-DACB BATTERY	COMPOSITE-J FACT 89-06309-001	151D 680806	ETR-368 -500	NO NO		997488
FAILURE MODE-OUT OF TOLERANCE. ATLAS TELEMETRY 1 FILAMENT SUPPLY VOLTAGE DROPPED TO 9.4 AFTER TELEMETRY TO INTERNAL . REDLINE IS 6.0 VOLTAGE SUPPLIED BY A GROUND SUPPLY AND NOT AN AIRBORNE BATTERY.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-COMPOSITE DELAYED.							
CORRECTIVE ACTION-USED BATTERY. REASON FOR LOW VOLTAGE BEING INVESTIGATED.							
INSTRUMENTATION-A/B POWER SOURCE	MSAPE 007D/P48-CO-04-DACB BATTERY	COMPOSITE-J FACT	151D 690731	ETR-368 180	NO NO		997449
FAILURE MODE-OUT OF TOLERANCE. ATLAS TELEMETRY 1 FILAMENT SUPPLY VOLTAGE WAS 5.5 (LOW) AFTER TELEMETRY WAS TRANSFER RED TO INTERNAL. POWER WAS SUPPLIED FROM A GROUND SUPPLY AND NOT AN AIRBORNE BATTERY.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-REASON FOR LOW VOLTAGE BEING INVESTIGATED. A BATTERY WAS INSTALLED DURING A HOLD.							
INSTRUMENTATION-A/B POWER SOURCE	MSCAPE132B/P48-CO-03-DACB BATTERY TELEMETRY NO. 2	COMPOSITE-J FACT	151D 690728	368	YES NO		997455
FAILURE MODE-OUT OF TOLERANCE. BATTERY OPEN CIRCUIT VOLTAGE WAS MEASURED AS 29.8 VDC REDLINE VALUE IS 30.0 VDC.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-REQUESTING REDLINE CHANGE TO 29.0 VOLTS.							
INSTRUMENTATION-A/B POWER SOURCE	LV-98-26-4977-F BATTERY	FAR 87-06388-1	204D 690303	ETR	YES NO	EAGLE-PICKER NO 6AP4087	
FAILURE MODE-LEAK-EXTERNAL. A SMALL AMOUNT OF LIQUID LEAKED FROM THE BATTERY VENT HOSE WHEN THE BATTERY WAS ACTIVATED DURING A J-FACT TEST. IT PERFORMED SATISFACTORILY FOR THE TEST. DEFORMATION OF THE BATTERY CELLS MAY HAVE BEEN RESPONSIBLE FOR THE LEAKAGE.							
CORRECTIVE ACTION-EAGLE-PICKER ELIMINATED FOAMING THE POTTING IN THE VULNERABLE AREA OF THE BUMP BY CEMENTING LOCKP OAM POTTING AROUND TO THE EXPOSED SIDES, ENDS, AND BOTTOM OF THE BUMP AND TO THE END OF THE CELL BLOCK ASSEMBLY. THE							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REP RT NUMBER	VEHICLE	DATE	TIME	DI	OT	VENOOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE	TIME	DI	OT	VENOOR PART NO
BATTERY WILL BE FREE-FOAM POTTED AND LID WELDED AFTER POTTING.							
INSTRUMENTATION-A/B	AGS-950-8016/P8-LB-03-DAC4	COUNTDOWN	1480	36A	YES		
POWER SOURCE	BATTERY	87-06358-1	841811	-9300	NO		
FAILURE MODE-OUT OF SPECIFICATION. BATTERY VOLTAGE OUT OF TOLERANCE (BELOW REDLINE).							
SYSTEM EFFECT-OPERATION TOO LOW. BATTERY VOLTAGE OUT OF TOLERANCE (BELOW REDLINE).							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-BATTERY WAS REPLACED.							
INSTRUMENTATION-A/B	89A3125.1	UTP-EUAL/PPT	840823	60/C	YES	POWER SOURCES	
POWER SOURCE	BATTERY	89-08308-1			NO	200894	
FAILURE MODE-STRUCTURAL. PRESSURE TESTING THE SPECIMEN FOLLOWING TEMPERATURE SHOCK TEST INDICATED ONE OR MORE OF THE CELLS CRACKED. THE BATTERY WAS ACTIVATED AND A PIN TO CASE VOLTAGE READING WAS RECORDED. THIS CONFIRMED FAILURE.							
CORRECTIVE ACTION-SPECIMEN IN/D TO VENDOR FOR REPLACEMENT. THE CELL CONFIGURATION WAS MODIFIED BY VENDOR TO PASS THE TEMPERATURE SHOCK TEST. MODIFIED PART REQUESTED AND SUCCESSFULLY PASSED. (REF. PRR 391).							
INSTRUMENTATION-A/B	LV-88-24-4736F	FAR	2500	ETR	YES	EAGLE-PICHER	
POWER SOURCE	BATTERY	87-06358-1	840813		NO	P1756	
FAILURE MODE-FAIL DURING OPERATION. BATTERY VOLTAGE DROPPED BELOW THE REDLINE VALUE OF PLUS 26.7 VOLTS DC. 4 HOURS AFTER ACTIVATION. FAILURE WAS CAUSED BY THE BATTERY ACTIVATION CURRENT NOT BEING TURNED OFF AFTER BATTERY ACTIVATION.							
CORRECTIVE ACTION-BAR LV-88-24-9379 WAS WRITTEN RECOMMENDING THE LAUNCH COMPUTER SYSTEM BE MODIFIED TO REMOVE THE BATTERY ACTIVATE CURRENT WHEN BATTERY OUTPUT VOLTAGE HAS REACHED NOMINAL VALUE. THIS WILL ELIMINATE THE POSSIBILITY OF THE DROPPING RESISTOR OVERHEATING AND SUBSEQUENT DAMAGE TO THE BATTERY.							
INSTRUMENTATION-A/B	89A3125.1	UTP-EUAL/PPT	840801	60/C	YES	POWER SOURCES	
POWER SOURCE	BATTERY	89-08308-1			NO	200894	
FAILURE MODE-OUT OF TOLERANCE. DURING EXAMINATION OF PRODUCT, SEVERAL OUT-OF-TOLERANCE DIMENSIONS WERE MEASURED.							
CORRECTIVE ACTION-TESTING CONTINUED. OUT OF TOLERANCE DIMENSIONS NOT CRITICAL. THE SPECIFICATION CONTROL DRAWING WAS							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	B CHANGED TO ALLOW FOR TOLERANCES. S.C. AND OPI NOTIFIED ON OTHERS. VIR 89-08308-1-01 AND VIR 89-08308-1-07 ALLOWED FOR WIDER TOLERANCES. (REF. PRR 383).						891789
INSTRUMENTATION-A/B POWER SOURCE	SDA-BK64-032/P8-401-00-288 BATTERY-SQUID	COUNTDOWN 87-06358-009	8500 840727	18 -3300	YES NO		899718
FAILURE MODE-SHORT (ELECTRICAL). TELEMETRY BATTERY NO 1 ACTIVATE SQUID SHORTED, DRAWING EXCESSIVE CURRENT.							
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. BATTERY OUTPUT VOLTAGE DROPPED TO ZERO AND BATTERY READY LIGHT ILLUMINATED AT 7-55 MIN. FAILURE DUE TO SHORTED OUTPUT CONNECTOR CAUSED BY OVERHEATING FROM EXCESSIVE CURRENT THROUGH A SHORTED CURRENT LIMITER AND SHORTED SQUID.							
VEHICLE EFFECT-COUNTDOWN DELAYED FOR 70 MINUTES HOLD.							
CORRECTIVE ACTION-REPLACED BATTERY. COUNTDOWN PROCEDURE REVISED TO REMOVE ACTIVATE SIGNAL AFTER BATTERY ACTIVATE UNTIL JUST PRIOR TO GOING INTERNAL.							
INSTRUMENTATION-A/B POWER SOURCE	FTA8251/P3-4CO-08-107 BATTERY, TELEMETRY	COMPOSITE-J FACT 87-06358-001	1970 830930	13	YES NO		895282
FAILURE MODE-SHORT (ELECT). SHORTING PIN NOT REMOVED FROM ACTIVATION CIRCUIT.							
SYSTEM EFFECT-OPERATION DOES NOT START. ATTEMPT TO ACTIVATE BATTERY FAILED. BATTERY SUBMERGED IN WATER TO SATISFY SAFETY REQUIREMENTS.							
VEHICLE EFFECT-COMPOSITE DELAYED. PROBABLE HOLD INFERRED FROM INSUFFICIENT INFORMATION.							
CORRECTIVE ACTION-BATTERY REPLACED.							
INSTRUMENTATION-A/B POWER SOURCE	A-80-24-4185-F BATTERY	FAR 87-06181-1	45F 830911	W/R	YES YARDNEY NO		891308
FAILURE MODE-EXTERNAL LEAK. THE TELEMETRY BATTERY FAILED WHEN NO VOLTAGE OUTPUT COULD BE MEASURED AFTER ACTIVATION. FAILURE WAS CAUSED BY INSUFFICIENT GAS PRESSURE TO IMPLATE THE BLADDER AND FORCE THE ELECTROLYTE INTO THE BATTERY CELLS. THE GAS PROBABLY LEAKED OUT OF THE STORAGE TANK THROUGH A DEEP SCRATCH UNDER THE WASHER WHERE THE BLADDER ATTACHED TO THE STORAGE TANK.							
CORRECTIVE ACTION-NONE. THE VENDOR WAS INFORMED OF THE FAILURE AND ITS SUSPECTED CAUSE.							
INSTRUMENTATION-A/B POWER SOURCE	H6-98-24-3488-C BATTERY	FAR 87-06848-1	830484	ETR	YES EASLE-PICKER NO MAR-4873		
FAILURE MODE-OUT OF TOLERANCE. LIGHTWEIGHT TELEMETRY BATTERY GAVE A VOLTAGE INDICATION OF 34.8 VOLTS WHEN THE MINIMUM ALLOWED IS 34.5 VOLTS. FAILURE ANALYSIS WAS CANCELED SINCE THE BATTERY WILL REMAIN AT ETR FOR TESTING.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B POWER SOURCE	A-98-24-3081-Y BATTERY-8801B	FAR 27-06190-1	97 620807	ETR	YES NO	EAGLE-PITCHER NO 6AP4048
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE BATTERY SHOWED NO OUTPUT AFTER THE ACTIVATION CIRCUIT HAD BEEN ENERGIZED. ANALYSIS SHOWS THAT 3 POSSIBILITIES COULD EXPLAIN THE FAILURE. 1. AN AGEING PROBLEM. 2. EXTENSIVE TESTING. 3. A COMBINATION OF 1 AND 2 VENDOR ANALYSIS SHOWED AN AGEING PROBLEM, AGGRAVATED BY HIGH TEST CURRENTS EXISTING WITHIN THE BATTERY.</p> <p>CORRECTIVE ACTION-THE VENDOR WILL USE A NEW BATTERY IN WHICH THE MATCH MATERIAL IS HERMETICALLY SEALED TO PREVENT INTERACTION OF THE MATCH MATERIAL AND THE OTHER BATTERY COMPONENTS.</p>						
INSTRUMENTATION-A/B POWER SOURCE	ETR LOCAL REPORT/P2-4CO-04-179 BATTERY	COMPOSITE-9 FACT 27-06359-2	1790 620822	18	YES NO	EAGLE-PITCHER NO P1734
<p>FAILURE MODE-LEAK-EXTERNAL FOLLOWING ACTIVATION ELECTROLYTE LEAKAGE WAS NOTED.</p> <p>SYSTEM EFFECT-DEPLETION OF LIQUID SUPPLY.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED.</p> <p>CORRECTIVE ACTION-REMOVED BATTERY AND REINSTALLED BATTERY SIMULATOR CABLES. (FAR 98-14-138).</p>						
INSTRUMENTATION-A/B POWER SOURCE	A-90-24-3113F BATTERY	FAR	620807	VAFB-FB	YES NO	YARDNEY NO 19AP43-88
<p>FAILURE MODE-LEAK-EXTERNAL-TWO BATTERIES FAILED ON 7 AND 8 AUGUST, 1982, RESPECTIVELY. ELECTROLYTE WAS FOUND ON THE MISSILE AFTER THE BATTERIES HAD BEEN USED AND REMOVED. THE FAILURES WERE CONFIRMED. THE DESIGN OF THE BATTERY IS SUCH THAT IT WILL ALLOW EXCESS ELECTROLYTE TO LEAK OUT OF THE BATTERY CASE.</p> <p>CORRECTIVE ACTION-OSTP ECP #481 AND #481-B-1 WERE ISSUED TO PROVIDE FOR THE RE-ORIENTATION OF THE BATTERY ON THE MISSILE TO ELIMINATE THE PROBLEM.</p>						
INSTRUMENTATION-A/B POWER SOURCE	H6-98-24-274F BATTERY	FAR 27-06348-1	620500	ETR	NO NO	EAGLE PITCHER NO MAR4073
<p>FAILURE MODE-OUT OF TOLERANCE. IMPROPER HANDLING AND PROCESSING CAUSED FAILURE.</p> <p>CORRECTIVE ACTION-DESIGN GROUP REQUESTED ON AUGUST 17, 1982 REVISION TO PROCEDURE 27-93493-1 ON BATTERY HANDLING AFTER ACTIVATION AND PRIOR TO LOAD TEST BATTERY HEATERS SHALL BE ACTIVATED FOR A MINIMUM PERIOD OF ONE HOUR.</p>						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B POWER SOURCE	A-98-24-231F 18 RPS COMMUTATOR-MOTOR	FAR	820403	ETR	YES NO	REED AND REESE NO 1088465-33	0898001
FAILURE MODE-ELECTRICAL SHORT DURING BENCH TEST IN LABORATORY. FAILURE CAUSED COMMUTATOR MOTOR SPEED TO FLUCTUATE. A CONTINUITY CHECK WAS MADE AND IT WAS FOUND THAT A WIRE WAS SHORTED TO THE SHIELD OF THE WIRE. HOWEVER, THE MOTOR MAINTAINED CONSTANT SPEED TO SPEC. REQUIREMENTS. CAUSE OF FAILURE COULD NOT BE CONFIRMED.							
CORRECTIVE ACTION-MOTOR REPLACED WITH IMPROVED MOTOR EFFECTIVE DEC 1981.							
INSTRUMENTATION-A/B POWER SOURCE	AA42-0050/P8-4CO-08-F1 BATTERY, ATLAS TELEMETRY NO. 1	COMPOSITE-J FACT	1040	36A	YES NO	YARDNEY P1780	094026
FAILURE MODE-OUT OF EXPECTED TEST VALUE. UPON ACTIVATION THE OPEN CIRCUIT VOLTAGE WAS 31. NORMAL IS 29.5. VOLTAGE DROPPED TO 30. THE REDLINE, THEN INCREASED TO 30.8 AND STABILIZED. BATTERY DELIVERED 28 VOLTS LOADED, WITHIN THE TOLERANCE WHICH WAS 26 TO 30.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B POWER SOURCE	A-98-24-237-F BATTERY	FAR	820306	AMR	YES NO	EAGLE PITCHER	093640
FAILURE MODE-OUT OF TOLERANCE. SUBJECT 3 BATTERIES FAILED THAT PORTION OF LOAD TEST WHICH STATES THE VOLTAGE SHALL DECREASE TO 29.7 VOLTS WITHIN 0.5 SEC AFTER APPLICATION OF LOAD AND SHALL BE BETWEEN 28.6 AND 29.7 VOLTS THEREAFTER. FAILURE NOT CONFIRMED.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B POWER SOURCE	M6-98-24-274-F BATTERY	FAR	820300	ETR-J	NO NO	EAGLE-PITCHER	
FAILURE MODE-OUT OF TOLERANCE. THE BATTERY VOLTAGE DROPPED TO 28.5 VOLTS DURING PRELOAD TEST. SPECIFIED IS 28.6 TO 29.7 VOLTS. THE BATTERY WAS IMPROPERLY LOADED WITHOUT ACTIVATING THE HEATER TO BRING IT UP TO OPERATING TEMPERATURE.							
CORRECTIVE ACTION-MISSILE ELECTRICAL DESIGN GROUP (MEMO 88-661-7-78 DATED 17 AUGUST 1982) REQUESTED THAT THE LIGHT WEIGHT TELEMETRY BATTERY HANDLING PROCEDURE (87-98498-2) BE REVISED TO REQUIRE THAT HEATERS BE ACTIVATED FOR A MIN							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-A1N50RME

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
NUM OF ONE HOUR PRIOR TO LOAD TEST.							091459
INSTRUMENTATION-A/B POWER SOURCE	A88-24-186-F	FAR 87-06161-1	32E 61110	ETR	YES NO	YES EAGLE-PICHER	097467
FAILURE MODE-ERRATIC OPERATION OF VOLTAGE OUTPUT WAS REPORTED DURING COUNTDOWN. LABORATORY CHECK SHOWED PIN A, B, C AND D SHORTED TO CASE. LATER ANALYSIS DID NOT CONFIRM FAILURE. BATTERY MAY HAVE BEEN 18/0 ON SUSPICION AS ANOTHER BATTERY THAT OPERATES IN CONJUNCTION WITH THIS ONE DID FAIL.							
CORRECTIVE ACTION-NONE TAKEN. BATTERY DID NOT FAIL.							
INSTRUMENTATION-A/B POWER SOURCE	A-98-24-186F BATTERY-SWITCH	FAR 87-06161-1	32E 61110	ETR	YES NO	YES EAGLE-PICHER	097466
FAILURE MODE-ELECTRICAL SHORT. OCCURRED WHEN VOLTAGE DROP WAS NOTED DURING COUNTDOWN. A LABORATORY CHECK SHOWED PIN B, A, B, C AND D SHORTED TO CASE. ANALYSIS CONFIRMED AN INTERNAL SHORT AROUND MONITOR SWITCH WHICH HAD FAILED TO BURN COMPLETELY OPEN AS REQUIRED.							
CORRECTIVE ACTION-THE VENDOR WAS NOTIFIED OF THE SWITCH PROBLEM AND IS INCORPORATING A SWITCH OF NEW DESIGN IN ALL FUTURE BATTERIES.							
INSTRUMENTATION-A/B POWER SOURCE	A461-0124/PS-SCO-01-24 TLM BATTERY HARNESS CONNECTOR	COMPOSITE-B FACT	32E 610618	13	YES NO		090226
FAILURE MODE-OUT OF TOLERANCE. HARNESS CONNECTOR FOR TLM 3 BATTERY WAS CLOKED 180 DEGREES FROM NORMAL POSITION. HARNESS WAS NOT OF SUFFICIENT LENGTH TO ALLOW INSTALLING WITH CONNECTOR BACKSHELL POINTING FORWARD INSTEAD OF AFT.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NECESSARY LENGTH ADDED TO HARNESS TO PERMIT INSTALLATION.							
INSTRUMENTATION-A/B POWER SOURCE	98-24-193 BATTERY	FAR 87-06161-1	610706	ETR-13	YES NO	YES EAGLE PITCHER	
FAILURE MODE-FAIL DURING OPERATION. FOLLOWING ACTIVATION OF THE BATTERY EXCESSIVE VOLTAGE WAS NOTED. THE FILAMENT A NO PLATE CONNECTION PINS WERE REVERSED. THE FAILURE WAS THE RESULT OF A MANUFACTURING DEFECT.							
CORRECTIVE ACTION-PRESENT INVESTIGATION OF THE PROBLEM ENCOUNTERED ON THE BATTERY INDICATES THAT THIS BATTERY WAS O							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI O/H	VENDOR NAME VENDOR PART NO
VER LOOKED DURING IN PLANT SURVEY CONDUCTED BY RECEIVING INSPECTION. AN INSPECTION OPERATION WAS INCORPORATED INTO RECEIVING INSPECTION PROCEDURES IN APRIL 1961, TO CHECK OUT BATTERIES FOR CORRECT WIRING.						
INSTRUMENTATION-A/B POWER SOURCE	AAS1-0081/P3-S01-00-82 TELEMETRY BATTERY	COUNTDOWN	2ZE 810708	13 -4800	YES NO	
FAILURE MODE-OUT OF TOLERANCE. WHEN TLM 8 BATTERY WAS ACTIVATED, METER READINGS INDICATED THAT THE FILAMENT AND 8-P LUS VOLTAGES WERE IMPROPER. SUBSEQUENTLY FOUND THAT THE FILAMENT AND 8-PLUS LEADS WERE REVERSED INTERNALLY IN THE BATTERY CONNECTOR.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COUNTDOWN DELAYED 110 MINUTES.						
CORRECTIVE ACTION-REPLACEMENT BATTERY INSTALLED.						
INSTRUMENTATION-A/B POWER SOURCE	9B-24-111 BATTERY	FAR 27-08181-1	13E 810313	ETR	YES NO	YARDNEY
FAILURE MODE-FAILED DURING OPERATION. ABOUT 2 HOURS AFTER ACTIVATION, THE OPEN CIRCUIT VOLTAGE ACROSS THE 8 PLUS SECTION OF THE ITEM BATTERY DROPPED TO ZERO VOLTS. THE BATTERY FAILED BECAUSE OF ELECTROLYTE LEAKAGE AROUND THE POSITIVE 8 PLUS TERMINAL.						
CORRECTIVE ACTION-TO PREVENT FUTURE OCCURRENCES OF ELECTROLYTE LEAKAGE, ALL TLM BATTERIES BUILT AFTER FEB 1, 1961 BY YARDNEY WILL BE COMPLETELY DIPPED IN POLYURETHANE BEFORE BEING INSTALLED IN THE BATTERY CASES.						
INSTRUMENTATION-A/B POWER SOURCE	AAS1-0032/P3-S01-00-13 TELEMETRY BATTERY	COUNTDOWN	13E 810310	13 -8100	YES NO	
FAILURE MODE-OUT OF SPECIFICATION ON TOLERANCE. RF 8 BATTERY VOLTAGE DROPPED BELOW OPEN CIRCUIT REDLINE VALUE.						
SYSTEM EFFECT-OPERATION TOO LOW.						
VEHICLE EFFECT-COUNTDOWN DELAYED 121 MINUTES.						
CORRECTIVE ACTION-BATTERY REPLACED.						
INSTRUMENTATION-A/B POWER SOURCE	9B-24-078 BATTERY	FAR 27-08358-8	94D 800782	ETR	YES NO	YARDNEY
FAILURE MODE-STRUCTURAL. THE BATTERY WAS REJECTED IN THE LAB WHEN THE FILAMENT VOLTAGE READ 3.4 VOLTS APPROXIMATELY 8 HOURS AFTER ACTIVATION. THE BATTERY HAD BEEN ACTIVATED ON THE MISSILE. THE BOTTOMS OF THE FOUR FILAMENT CELLS WERE MARPED FROM EXCESSIVE HEAT. A HOLE WAS BURNED THROUGH THE SIDE OF TWO OF THE FILAMENT CELLS.						

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							004416
CORRECTIVE ACTION-REDUCED ACTIVATED STAND TIME IMPOSED AND PROCUREMENT REGULATED.							
INSTRUMENTATION-A/B POWER SOURCE	98-24-077 BATTERY	FAR 87-06358-9	640 600728	ETR	YES NO	YES YARDNEY	004417
FAILURE MODE-CONTAMINATION. DURING THE COUNTDOWN THE MONITOR CIRCUIT SWITCH FAILED TO OPEN FOR AT LEAST 90 MINUTES AFTER THE BATTERY HAD BEEN ACTIVATED. CAUSE OF THE FAILURE WAS DUE TO THE ELECTROLYTE MANIFOLD BEING CLOGGED WITH A CORK LIKE MATERIAL WHICH CAUSED A BACK PRESSURE THAT HELD THE MONITOR SWITCH CLOSED.							
CORRECTIVE ACTION-REDUCED ACTIVATED STAND TIME IMPOSED AND PROCUREMENT REGULATED.							
INSTRUMENTATION-A/B POWER SOURCE	AE60-0488/FC-400-Q1-32 WIRING	COMPOSITE-FACTORY	32D 800811		NO NO		006618
FAILURE MODE-FAIL DURING OPERATION. CHANNELS 15 AND 8 CONTAINED EXCESSIVE NOISE UP TO 10 PERCENT ISM. THE NOISE LEVEL DECREASED TO ACCEPTABLE LIMITS AFTER POWER CHANGEOVER FROM INTERNAL TO EXTERNAL. THE NOISE WAS CAUSED BY AN IMPROPERLY GROUNDED AND SHIELDED BATTERY SIMULATOR CABLE.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST- COMPOSITE TESTING WAS REQUIRED.							
CORRECTIVE ACTION-BATTERY SIMULATOR CABLE WAS PROPERLY GROUNDED AND SHIELDED. A TEST BATTERY WAS UTILIZED TO VERIFY THAT THE SOURCE OF THE NOISE WAS NOT MISSILEBORNE.							
INSTRUMENTATION-A/B POWER SOURCE	98-24-044 BATTERY	FAR 87-06358-9M	42D 600302	ETR	YES NO	YES YARDNEY	006616
FAILURE MODE-ELECTRICAL SHORT. THE FILAMENT POWER SECTION OUTPUT VOLTAGE DROPPED TO 2.9 VOLTS, UNDER LOAD WHEN THE BATTERY WAS SWITCHED TO INTERNAL AT T-3 1/2 MIN. ALL FOUR CELLS IN THE FILAMENT VOLTAGE BATTERY SECTION WERE WARPED AT THE BOTTOM. BATTERY FAILURE WAS CAUSED BY A SHORT CIRCUIT IN ONE CELL OF THE FILAMENT SUPPLY SECTION.							
CORRECTIVE ACTION-INVESTIGATE THE QUALITY CONTROL METHODS AT THE VENDORS PLANT TO PREVENT FUTURE OCCURRENCE OF THIS TYPE OF FAILURE.							
INSTRUMENTATION-A/B POWER SOURCE	PTA229/PB-401-0C-26 BATTERY	COUNTDOWN	28D 591104	13 -1500	YES NO		
FAILURE MODE-OUT OF SPECIFICATION, INDICATING BELOW THE UNLOADED REDLINE VALUE 6.6 V FOR FILAMENT VOLTAGE.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE DIF TIME DIF	PRI OTM	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-OPERATION TOO LOW.							000011
VEHICLE EFFECT-COUNTDOWN DELAYED. 88 MINUTES HOLD AND 80 MINUTES RECYCLE.							
CORRECTIVE ACTION-REPLACE TELEMETRY BATTERY.							
INSTRUMENTATION-A/B POWER SOURCE							007904
	FTAS85/P1-401-00-88 BATTERY-TELEMETRY	COUNTDOWN	260 891029	11 -1809	YES NO		
FAILURE MODE-ERRATIC OPERATION-TELEMETRY BATTERY WAS EXHIBITING ERRATIC VOLTAGE VARIATIONS.							
SYSTEM EFFECT-ERRATIC OPERATION-DEGRADATION OF DATA QUALITY.							
VEHICLE EFFECT-COUNTDOWN DELAYED. 81 MINUTE HOLD AND 18 MINUTE RECYCLE.							
CORRECTIVE ACTION-REPLACED TELEMETRY BATTERY.							
INSTRUMENTATION-A/B POWER SOURCE							000721
	DAB5/A1-401-00-19 BATTERY	FRF	190 890806	-A-1	YES NO		
FAILURE MODE-FAIL DURING OPERATION. IRSS BATTERY FAILED DURING THE TEST.							
SYSTEM EFFECT-NONE-EXTERNAL POWER WAS SUPPLIED TO THE TELEMETRY SYSTEM THROUGHOUT THE TEST.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-REPLACED BATTERY.							
INSTRUMENTATION-A/B POWER SOURCE							004030
	20-24-024 HARNES INSTRUMENTATION RANGE SAFE 27-11304-1 TV SYSTEM	FAR	40 890300	WTR	YES NO		
FAILURE MODE-FAIL DURING OPERATION-PIN 9 WAS PRESENT-ITS SLEEVE WAS MISSING. IT APPEARED THAT THE SLEEVE HAD PULLED AWAY FROM THE INTERNAL PIN AND WAS LOST AT SOME PREVIOUS DENATE OF THE CONNECTOR. TWO MORE SLEEVES WERE PULLED FROM THEIR INTERNAL PINS WHEN THE CONNECTOR PLASTIC INSERTS WERE SEPARATED.							
CORRECTIVE ACTION-CONVAIR HAS RECOMMENDED TO STL THAT THIS CONNECTOR BE CHANGED TO A MORE RELIABLE TYPE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CHOKE, FILTER ERS							
	89C4989	UTP-PRY	66-04-20 6D/C	YES OECO NO 10761			
FAILURE MODE-OUT OF TOLERANCE-DURING ELECTRICAL CHARACTERISTICS TEST, FOLLOWING THERMAL SHOCK TEST, THE INDUCTANCE MEASURED TO BE 0.07 HENRIES ON A FREED, MOD. 1110AB INDUCTANCE BRIDGE. THE INDUCTANCE SHOULD BE GREATER THAN 1.0 HEN R'. CAUSE WAS DUE TO CHOKE BUILT TO 1 VOLT, 400CP8. SPEC CONTROL DRAWING REQUIRED 1 HYNIN AT 8V, 400CP8.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-ENTIRE LOT WAS TESTED 1001 AT SV, 400CPB. CAR 6136 SENT TO OECO TO COMPLY WITH 1.0 MYMIN AT SV, 400CPB. SPEC. CONTROL DRAWING REVISED TO ACCEPT 0.88 HY MIN AT SV 400CPB AFTER EXPOSURE TO ENVIRONMENTAL TESTS. REF. CYCUM NO. 551-4-048						000309
	INSTRUMENTATION-A/B AEG1-0793/83-401-00-101 TELEMETRY SET AND TRANSDUC TRANSDUCER ERS						000297
	FAILURE MODE-FAIL DURING OPERATION. THE V2 AND V3 TAN MEASUREMENTS FAILED AT 106 AND 131 SECONDS RESPECTIVELY DUE TO AERODYNAMIC HEATING. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-THE VERNIER CLAMSHELL WAS INCORPORATED.						000182
	INSTRUMENTATION-A/B 69A3363 TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS						000160
	FAILURE MODE-OUT OF TOLERANCE. DURING X-AXIS VIBRATION, MINUS 4 PERCENT P.S. SPIKES WERE OBSERVED BETWEEN 900-950 C P.S VIBRATION FREQUENCY DURING THE INCREASING SWEEP. THIS FAILURE DID NOT REPEAT. MAXIMUM ALLOWABLE IS PLUS OR MINUS 2.5 PERCENT P.S. S/N 805-3752. PET LOT 710-6. CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.						000160
	INSTRUMENTATION-A/B 85C5099.1 TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS						000160
	FAILURE MODE-DURING THE FINAL PROOF CYCLE AN OUT-OF-TOLERANCE READING WAS NOTED WHEN THE TRANSDUCER WAS PRESSURIZED AT 900 PSIA DECREASING. THE THEORETICAL READING AT THIS PRESSURE IS 60.00. THE ACTUAL READING WAS 61.39. THE TOLERANCE ALLOWED IS PLUS OR MINUS 1.0 PERCENT, PLUS OR MINUS .28 PERCENT FOR INSTRUMENT ERROR. S/N 804-3717. PET LOT 710-8. CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.						000160

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15 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
808-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE DIP	TIME DIP	OTH	VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	69A9363	UTP-PET 69-01004-133	660609	60/C	YES	BOURNS NO 2007571704
FAILURE MODE-AFTER 18PT, THE PRESSURE FITTING THREADS WERE FOUND TO BE GALLED AFTER BACKING THE B NUT OFF THESE THR EADS. S/N 608-3749. PET LOT 710-6.						
CORRECTIVE ACTION-THE SPECIMEN WAS REJECTED FOR DEFECTIVE PRESSURE PORT THREAD (VENDOR RESPONSIBILITY). CORRECTIVE ACTION NOT COMPLETED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	69C5062	UTP-PET 69-01004-133	660986	60/C	YES	WIANCKO NO 100366133
FAILURE MODE-OUT-OF-TOLERANCE. DURING VIBRATION TEST, AT APPROXIMATELY 19 CPS OF THE RETURN SWEEP (2000 TO 3 CPS), THE SPECIMEN OUTPUT CHANGED FROM 2.524 VDC TO 0.397 VDC. S/N 605-0601.						
CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	69C5062	UTP-PET 69-01004-133	660516	60/C	YES	WIANCKO NO 100366-133
FAILURE MODE-CALIBRATION OUT OF TOLERANCE. THE MAX. ERROR DURING CALIBRATION WAS 1.28 PERCENT FSD AT 3150 AND 3500 PSIA. THE MAX. ALLOWABLE IS PLUS OR MINUS 1.00 PERCENT FSD. THE EQUIPMENT ERROR IS PLUS OR MINUS 0.25 PERCENT FSD. S /N 6040399. PET LOT 710-2.						
CORRECTIVE ACTION-CAR 6166 DATED 5-24-66 HAS BEEN ISSUED AND A PPR WILL BE SENT TO WIANCKO REQUESTING FAILURE ANALY SIS, CORRECTIVE ACTION AND REMARK OF THE UNIT. THIS SPECIMEN FAILED IN 1AT TESTING, AND IS NOT CONSIDERED A PET FAIL URE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	69V-A9-24-2070F	FAR 69-01004-133	71-24	FACTORY	WIANCO	100366-133
FAILURE MODE-OUT OF SPECIFICATION. EXCESSIVE POSITIVE SHIFT DUE TO EXTREME SENSITIVITY TO TAPPING THE TRANSDUCER WA S REPORTED BUT, UNCONFIRMED.						

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18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE. SINCE THE REPORTED FAILURE WAS UNCONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER CRS	69C4316	UTP-PAT 27-01552-51	660510	60/C	YES	WIANCKO NO 54103-13
FAILURE MODE-THE OUTPUT WAS OUT OF TOLERANCE DURING THE CALIBRATION PORTION OF ISPT. AT 5.00 PSID THE OUTPUT SHOULD BE 5.000 VOLTS. THE READING OBTAINED WHEN THE PRESSURE WAS INITIALLY APPLIED WAS 4.796. THE OUTPUT GRADUALLY INCREASED TO WITHIN THE REQUIRED 5.000 PLUS OR MINUS 0.050 VOLTS WITH NO PRESSURE CHANGE. S/N 6040444.						
CORRECTIVE ACTION-THE SPECIMEN WILL BE SUBJECTED TO FAILURE ANALYSIS AT WIANCKO ON 8-9-66. FINAL CLOSE-OUT OF PROBLEM DEPENDENT ON PPR REPLY.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER CRS	69A3298	UTP-PET 7-01413-5	660510	60/C	YES	BORG-WARNER NO 9747
FAILURE MODE-THE OUTPUT FREQUENCY WAS OUT OF TOLERANCE DURING THE LOW TEMPERATURE TEST AND DURING RUN 2 OF PROOF CYCLE B. PROOF CYCLE C FOLLOWING LOW TEMPERATURE TEST INDICATED ERROR BAND OF PLUS 0.31 PERCENT TO MINUS 0.00 PERCENT. ALLOWABLE IS PLUS OR MINUS 0.15 PERCENT. SYSTEM ERROR IS PLUS OR MINUS 0.15 PERCENT MAXIMUM. SERIAL NUMBER 604-0537. PET LOT 710-2.						
CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER CRS	69A3298	UTP-PET 7-01413-5	660504	60/C	YES	BORG-WARNER NO 9747
FAILURE MODE-DURING EXAMINATION OF PRODUCT, DIMENSIONAL-OUT-OF-TOLERANCES WERE OBSERVED ON DIMENSIONS A. L. M. N(WI DEI), AND N(LONG). SERIAL NUMBER 604-0537. PET LOT 710-2.						
CORRECTIVE ACTION-TESTING CONTINUED. VENDOR WILL BE NOTIFIED OF DISCREPANCIES AND REQUESTED TO TAKE PROPER CORRECTIVE ACTION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER CRS	69C4316	UTP-PAT 27-01552-51	660416	60/C	YES	WIANCKO NO 54103-13
FAILURE MODE-THE OUTPUT AT 0 PSID WITH INCREASING PRESSURE, RUN 3, HAD AN ERROR OF PLUS 1.30 PERCENT. MAXIMUM ALLOWABLE IS PLUS OR MINUS 1.0 PERCENT PSID. SYSTEM ERROR IS LESS THAN PLUS OR MINUS 0.25 PERCENT PSID. S/N 6030441.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							990336
	CORRECTIVE ACTION-CORRECTIVE ACTION-NOT COMPLETED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	69C4804 AMP. DISP. TRANSDUCER - SCREW	UTP-PAT 69-01008-3	680418	60/C	YES SERVONI-INST.1 NO NC. 5041-0103		990335
FAILURE MODE - OUT OF TOLERANCE. THE CLAMP LOCK SCREW COULD NOT TIGHTEN THE CLAMP WITH 128 INCH- OUNCES, AT WHICH T ORQUE VALUE THE SCREW BROKE. 48 INCH-OUNCES IS THE MAXIMUM TORQUE ALLOWED. THE SCREW MUST HAVE BEEN DAMAGED DURING H ANDLING AT 60/C, AND DID NOT ENTER THE SECOND SET OF CLAMP THREADS. S/N 3110103.							
CORRECTIVE ACTION - NONE. SINCE THE UNIT PASSED THE CLAMPING TORQUE TEST DURING RECEIVING TESTS, THE SCREW MUST HAV E BEEN DAMAGED DURING HANDLING. CLAMPING TORQUE IS CHECKED ON EACH UNIT DURING RECEIVING IAT, THUS NO FURTHER ACTION IS NEEDED.							990317
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	27C4582 ACCELEROMETER	UTP-PET 7-01413-3	680418	60/C	YES BORG-WARNER NO 9747		
FAILURE MODE-DURING FBPT, THE RDG OVERLOAD TEST CAUSED A 3 TO 4 CPS SHIFT IN OUTPUT FREQUENCY WHICH RESULTED IN OUT OF TOLERANCE CONDITIONS DURING RUN 3. MAXIMUM ERROR WAS MINUS 0.35 PERCENT. ALLOWABLE ERROR IS PLUS OR MINUS 0.13 P ERCENT. SYSTEM ERROR IS PLUS OR MINUS 0.18 PERCENT. SERIAL NUMBER 603-0331. PET LOT 710-1.							
CORRECTIVE ACTION-TESTING WAS COMPLETED AND PART SENT TO 60/C RELIABILITY FAILURE ANALYSIS. WHEN FAILURE ANALYSIS I S COMPLETED THE VENDOR WILL BE NOTIFIED OF NECESSARY CORRECTIVE ACTIONS.							990318
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	27C4582 ACCELEROMETER	UTP-PET 7-01413-3	680418	60/C	YES BORG-WARNER NO 9747		
FAILURE MODE-DURING LOW TEMPERATURE TEST THE VOLTAGE OUTPUT WENT OUT OF TOLERANCE AND THE OUTPUT FREQUENCY SHIFTED. SERIAL NUMBER 603-0331. PET LOT 710-1.							
CORRECTIVE ACTION-TESTING CONTINUED. PRELIMINARY FAILURE ANALYSIS REPORTS INDICATE THE VOLTAGE OUTPUT PROBLEM WAS C AUSED BY HEATER THERMOSTAT FAILING TO CONTROL AT 108 DEGREES F AND ALLOWED TEMPERATURE OF HEATER TO GO TO 138 DEGREE S F AND HIGHER. THE OUTPUT FREQUENCY SHIFT PROBLEM APPEARS TO BE DUE TO ERRATIC OPERATION OF THERMOSTAT DURING ACCEL ERATION CAUSING TEMPERATURE TO RISE ABOVE 108 DEGREES F. THE FAILURE ANALYSIS IS CONTINUING.							

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15 JUN 1969

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIS	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	81V-80-24-20087 FALCISTER	PAR 80-11100-848	800414	WTR		80/C	890489
FAILURE MODE-OUT OF SPECIFICATION. EXCESSIVE NOISE WAS REPORTED ON ALL CHANNELS. DISCREPANCY ATTRIBUTED TO RECORDING EQUIPMENT.							
CORRECTIVE ACTION-NONE. SINCE THE FAILURE WAS NOT WITH THIS PART.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONVERTER-FRES-DC ERS	374-3-68-24	FLIGHT	5001 680408	ETR12 98	YES NO	YES NO	890415
FAILURE MODE-MEASUREMENT P038 ERRONEOUSLY DISPLAYED A DROP IN PUMP SPEED FOR A 20 SECOND PERIOD.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-OPEN-INVESTIGATION IN PROCESS TO DETERMINE EXACT CAUSE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	374-3-68-24 TRANSDUCER	FLIGHT 701413-8	5001 680408	ETR12	YES NO	YES NO	890414
FAILURE MODE-MEASUREMENT UG01A WAS ERRATIC DISPLAYING TRANSIENTS AT 37 AND 42 SECONDS-BECOMING NOISY AT 88 SECONDS-DEVIATING LOW FROM 91 SECONDS ON-AND LIMITING AT 3.4 6 FOR THE LAST 18 SECONDS OF BOOSTER PHASE.							
SYSTEM EFFECT-NONE-LOSS OF THE SINGLE MEASUREMENT ONLY.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-OPEN-INVESTIGATION IN PROCESS TO DETERMINE CAUSE. CONTAMINATION IS SUSPECTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	374-3-68-24 TRANSDUCER	FLIGHT 7-01004-R3	5001 680408	ETR12 -8	YES NO	YES NO	
FAILURE MODE-MEASUREMENT A TAST DISPLAYED AN ERRONEOUS DROP IN TEMPERATURE FROM -8 TO 78 SECONDS WHEN IT RETURNED TO NORMAL OPERATION.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI OTH	VENDOR NAME VENDOR PART NO
						090313
	CORRECTIVE ACTION-THE AXIS OF THE TRANSDUCER WAS ROTATED 90 DEGREES ON SUBSEQUENT INSTALLATIONS SUCH THAT THE SENSITIVE ELEMENT WILL POINT AFT THUS AVOIDING WATER CONTAMINATION WHICH WAS THE SUSPECT CAUSE.					
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER	UTP-PET 7-01413-5	60406	60/C	YES BORG-WARNER NO 9747	090319
	FAILURE MODE-DIMENSION A WAS OUT OF TOLERANCE ON ALL HOLES BECAUSE OF POOR ALIGNMENT. THE LARGEST HOLE GAGE THAT WOULD PASS THROUGH ALL HOLES WAS 0.196. THE NEXT LARGEST GAGE USED WAS 0.199. TOLERANCE IS 0.199 TO 0.203. DIMENSION K SHOULD BE 0.47 TO 0.53. IT MEASURED 0.55. DIMENSION M SHOULD BE 4.78 TO 4.79 WIDE AND 5.72 TO 5.76 LONG. IT MEASURED 4.70 BY 5.71. SERIAL NUMBER 603-0331. PET LOT 710-1.					
	CORRECTIVE ACTION-CONTINUE TEST. VENDOR WAS CONTACTED ON 4-8-66 AND INFORMED OF DIMENSIONAL DISCREPANCIES. VENDOR PROMISED TO REVIEW HIS SPECS AND MAKE THEM CONFORM TO 60/C REQUIREMENTS. DIMENSION K WILL BE REVISED BY 60/C ENGINEERING TO READ, 0.5 (REF.).					
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	UTP-BUAL/PPT 69-01003-19	60406	60/C	YES SERVONIC INST. NO INC. 3031-2119	090193
	FAILURE MODE-OUT OF TOLERANCE. DURING THE TEMPERATURE TEST AT MINUS 100 DEGREES F., THERE WAS NO OUTPUT FROM THE TEST SPECIMEN. THE ELEMENT WAS CONTINUOUS, BUT THE OUTPUT WAS OPEN AT ALL TIMES. S/N 410-8211.					
	CORRECTIVE ACTION-VENDOR WORKSMANSHIP CAUSED THE FAILURE. SOLDER SPLASHES ON THE WIPER CAUSED THE WIPER TO ACT AS A BIRMETAL STRIP, THUS LIFTING OFF THE ELEMENT. FOR FURTHER PRODUCTION, THE VENDOR HAS DIRECTED HIS INSPECTORS TO CHECK THE WIPER ASSEMBLY MORE CAREFULLY, IN ACCORDANCE WITH PPR 9-0500-KC DATED 3-24-66.					
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER	UTP-PET 7-01413-5	60405	60/C	YES BORG-WARNER NO 9747	090321
	FAILURE MODE-OUT OF TOLERANCE. UNIT WAS SUBJECTED TO VIBRATION TESTS PER CTC TASK HISTORY NUMBER 4. RESONANCE OCCURRED AT 1000 CPS WHILE VIBRATING IN THE SENSITIVE Z AXIS. OUTPUT FREQUENCY EXCURSION WAS FROM 10,300 TO 12,800 CPS. THE HEATER POWER CALCULATED IN POST VIBRATION PROOF CYCLE C (PROC. 87F4888, PARA. 4.7.3 SMALL B.1) IS 39 WATTS. MAXIMUM ALLOWABLE IS 30 WATTS. SERIAL NUMBER 603-0331. PET LOT 710-1.					
	CORRECTIVE ACTION-CONTINUE TESTING. SPEC. 7-01413 WILL BE CHANGED TO ALLOW 30 WATTS MAXIMUM HEATER POWER FOR THE INITIAL 2 MINUTES AFTER POWER TURN-ON AND THEN 30 WATTS MAXIMUM AFTER 8 MINUTES. THE CHANGE WILL BE MADE UPON RECEIPT OF VENDOR VIR.					

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE TIME OF DAY	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TEMPERATURE TRANSDUCER ERS	6SC4887.1 7-01684-83	UTP-PET 7-01684-83	660403	60/C	YES NO	ROSEMOUNT 1807D 000312
FAILURE MODE-A TIME CONSTANT AND TIME RESPONSE TEST WAS PERFORMED ON THE UNIT PER TP 88F4887 PARA. 5.0 SHALL B. SMA LL C. AT AN OIL VELOCITY OF 3.8 FEET PER SECOND. THE TIME CONSTANT AND RESPONSE TIME WERE 0.38 SECONDS AND 3.3 SECONDS. RESPECTIVELY. THE REQUIRED VALUES ARE 0.30 SECONDS MAX. AND 3.0 SECONDS. RESPECTIVELY. SERIAL NUMBER 508-0088. 8 PECIAL PET.						
CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	60C5136 89-01003-10	UTP-DUAL/PPT 89-01003-10	660403	60/C	YES NO	SERVONIC INST. INC. 3031-2519 000184
FAILURE MODE-OUT OF TOLERANCE. DURING THE CONTINUITY TEST PERFORMED DURING THE I.B.P.T. THE NOISE EXCEEDED 0.5 PERCENT DURING BOTH INCREASING AND DECREASING PRESSURE AT ONE POINT. RECORDED VALUE IS APPROXIMATELY 10 PERCENT. WITH 0.5 PERCENT THE MAXIMUM ALLOWABLE. SUBSEQUENT CHECKS INDICATED THAT THE NOISE IS NOW LESS THAN 0.5 PERCENT. S/N 4 102811.						
CORRECTIVE ACTION-AN X-Y PLOT IS PART OF THE PRE-INSTALLATION CALIBRATION, THUS ANY DISCREPANCY OF THIS TYPE WOULD BE FOUND DURING THIS CHECKOUT, AND RESULT IN THE REJECTION OF THE PART. NO FURTHER ACTION NEEDED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ACCELEROMETER ERS	27C4592 7-01413-3	UTP-PET 7-01413-3	660404	60/C	YES NO	BORG-WARNER 9747 000323
FAILURE MODE-OUT OF TOLERANCE. DURING SPT (PROCEDURE 87F4382, PARA. 5.8) THE MAXIMUM HEATER DISSIPATION REACHED 35.2 WATTS DURING THE FIRST MINUTE OF OPERATION (PARA. 4.7.1.2 SHALL B. 1). MAXIMUM ALLOWABLE IS 30 WATTS. SERIAL NUMBER 401-0388. PET LOT 710-1.						
CORRECTIVE ACTION-CONTINUE TESTING. UPON RECEIPT OF VIR FROM THE VENDOR, 60/C WILL REVISE SPEC. 7-01413 TO PERMIT 50 WATTS MAXIMUM FOR THE FIRST 2 MINUTES FROM INITIAL POWER TURN-ON. THE 30 WATTS MAXIMUM REQUIREMENT WILL APPLY AFTER THE INITIAL 2 MINUTES TURN-ON.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TLM CANISTER ERS	574-3-66-10 89-01003-10	FLIGHT 89-01003-10	3030	ABRESA-1	YES NO	000403
FAILURE MODE-MEASUREMENT ERROR ERRONEOUSLY EXHIBITED SHORT DURATION NEGATIVE FLUCTUATIONS. PROBLEM THOUGHT TO ORIGIN						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
ATE IN CROSSTALK AT THE SUBCARRIER LEVEL.							090396
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NONE PLANNED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER ERS	87C4582	UTP-PET 7-01413-9	860331	60/C	YES	BORG-WARNER NO 9747	090382
FAILURE MODE-DURING VIBRATION (PROCEDURE 27F4392, PARA. 9.8) OUT OF TOLERANCE CONDITIONS WERE OBSERVED IN THE X-AXIS 8. Y-AXIS, AND Z-AXIS SHEEPS. SERIAL NUMBER 801-0828. PET LOT 710-1.							
CORRECTIVE ACTION-ACCOMPLISH POST VIBRATION PROOF CYCLE. OBTAIN A REPLACEMENT SPECIMEN (803-0531) AND SUBJECT IT TO VIBRATION TESTS. FAILURE ANALYSIS ON 8/N 801-0528 TO BE PERFORMED AT VENDOR FACILITY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	574-3-66-37	FLIGHT	720	ABR388-8 840350 SECO	YES YES		090397
FAILURE MODE-MEASUREMENT P344P INDICATED AN ABNORMAL TRANSIENT AT SECO AND A DECAY DURING THE VERNIER SCLO PHASE. I T CANNOT BE DETERMINED IF THIS DATA IS ERRONEOUS OR REFLECTS A TRUE CONDITION.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NONE PLANNED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	89C4606	UTP-PAT 87-01847-8	860323	60/C	YES	LEWIS NO 87185086	090192
FAILURE MODE-OUT OF TOLERANCE. PINS A AND B WERE TOO LONG (DIMENSION X TOO SHORT). DIMENSION X LIMITS ARE 0.082 TO 0.088 INCH. DIMENSION K FOR PINS A AND B OF 8/N 308-0750 WERE 0.081 AND 0.016 INCH, RESPECTIVELY. DIMENSION K FOR P1 NS A AND B OF 8/N 308-0750 WERE 0.027 AND 0.024 INCH, RESPECTIVELY.							
CORRECTIVE ACTION-CONTINUE PAT TEST. VENDOR WAS MADE AWARE OF THIS PROBLEM DURING MEETING WITH VENDOR CHIEF ENGINE R ON 1-27-66 AT CONVAIR. A CHECK WAS MADE OF ALL UNITS IN STOCK AT CONVAIR. ALL DISCREPANT PARTS WERE RETURNED TO VE NOR FOR REMOVAL. VENDOR BEGAN CLOSE INSPECTION OF PIN CONDITION ON UNITS MADE AFTER 1-31-66.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER CRS	CT-98-24-3312 ABSOLUTE PRESSURE TRANSDUCER, MAND 87-01500-30 REL	PAR 87-01500-30	1040 000381	308	YES NO	BERYONIC 8081-0908
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS FOUND TO BE READING LOW. A RESISTANCE CHECK OF THE 7500 OHM RESISTANCE ELEMENT SHOWED 4800 OHMS.						
CORRECTIVE ACTION-CONFIRMED FAILURE. FAILURE WAS CAUSED BY THE MANOREL HAVING A GROOVE WORN IN IT BY THE WIPER. THIS RESULTED IN A SHORT CIRCUIT BETWEEN WINDINGS. TRANSDUCERS ON BOOSTERS, ESPECIALLY H874P TO BE KEPT UNDER SURVEILLANCE TO DETERMINE IF A CORRELATION EXISTS BETWEEN THE AMOUNT OF TESTING AND TRANSDUCER WEAROUT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER CRS	87C4302 ACCELEROMETER	UTP-PET 7-01413-8	000381	60/C	YES NO	BORG-WARNER 9747
FAILURE MODE-OUT OF TOLERANCE. DURING 8PT (PROCEDURE 87F4388, PARA. 8.2) THE FIRST TWO CALIBRATION RUNS AGREED WITH EACH OTHER. THE THIRD RUN (AFTER 80% OVERLOAD TEST) SHOWED A FREQUENCY SHIFT OF APPROX. 3 TO 7 CPS LOWER THAN THE FIRST TWO RUNS. AFTER TRANSVERSE ACCELERATION, BOTH PROOF CYCLE C RUNS FOLLOWED THE MEAN OUTPUT FREQUENCY CURVE WITHIN 1 M SPEC. SERIAL NUMBER 801-0388. PET LOT 710-1.						
CORRECTIVE ACTION-UPON COMPLETION OF TESTS UNIT WILL BE RETURNED TO VENDOR WITH ALL DISCREPANCIES. VENDOR WILL BE ASKED TO REPORT CAUSE OF DISCREPANCIES AND IMPLEMENT CORRECTIVE ACTION. 60/C 8. A. STATES THAT BORG WARNER DOES NOT PERFORM THE REQUIRED OVERLOAD TEST BETWEEN SECOND AND THIRD CALIBRATION RUNS AS REQUIRED BY SPEC. 7-01413. 60/C 8.2. LAB. FUNCTIONAL TESTS DO NOT INCLUDE A 80% OVERLOAD, AND COMPLIANCE WITH THE LONG-TERM ZERO SHIFT REQUIREMENT IS NOT DETERMINED BY CURRENT PRACTICES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER CRS	874-3-08-34 TRANSDUCER	FLIGHT	3040 000310	ABRESA-1	YES NO	
FAILURE MODE-MEASUREMENT UNSET FAILED TO INDICATE SENSOR PORT UNCOVERING. DATA WAS 80 PERCENT ISM HIGH PRIOR TO LIFT OFF AND WAS OFF SCALE HIGH AT PORT UNCOVERING. MECHANICAL DEFORMATION OF THE TRANSDUCER IS SUSPECT.						
SYSTEM EFFECT-NONE-LOSS OF THIS MEASUREMENT ONLY.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE-THIS HAS NOT BEEN A RECURRING PROBLEM. THE LIMITED FUTURE USE OF THIS INSTRUMENTATION DOES NOT WARRANT FURTHER ACTION.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PA-T NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	374-3-66-34 374-3-66-34	FLIGHT 701413-3	3040 680319	ABRESA-1 56	YES NO	BORG-WARNER
FAILURE MODE-MEASUREMENT UDISA DISPLAYED AN ABRUPT DROP OF APPROXIMATELY 10 AND WAS ERRATIC THEREAFTER UNTIL BECO. CONTAMINATION IS SUSPECT. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE. NO ACTION PLANNED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	374-3-66-34 374-3-66-34	FLIGHT	3040 680319	ABRESA-1 NO	YES NO	BORG-WARNER
FAILURE MODE-MEASUREMENT P30P WAS ERRATIC IN A MANNER TYPICAL OF POTENTIOMETER WIPER ARM LIFTOFF. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE-NO ACTION IS PLANNED UNLESS THE PROBLEM BECOMES REPETITIVE FOR THIS MEASUREMENT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER ERS	374-3-66-18 374-3-66-18	UTP-PET 7-01413-3	680319 680319	60/C	YES NO	BORG-WARNER
FAILURE MODE-OUT OF SPEC. RECALCULATION 18 APRIL 1968) OF MAXIMUM PERCENT ERROR FREQUENCY SHIFT DURING TRANSVERSE A ACCELERATION YIELDED 9.75 PERCENT FBO. MAXIMUM ALLOWABLE IS 0.55 PERCENT. SYSTEM ERROR, PLUS OR MINUS 0.33 PERCENT MA XIMUM. SERIAL NUMBER 601-0388. PET LOT 710-1. CORRECTIVE ACTION-CONTINUE TESTING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	374-3-66-18 374-3-66-18	FLIGHT 87-01618-7	7116 680319	PALCE-4	YES NO	MAA
FAILURE MODE-MEASUREMENT P300D ERRONEOUSLY INDICATED VALVE 'SHIFT OF 8 DEGREES BETWEEN 60 AND 90 SECONDS AND ERRATIC 3 DEGREE MOVEMENTS BETWEEN 90 AND 90 SECONDS. SYSTEM EFFECT-NONE.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRSCANE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-NONE.							880488
CORRECTIVE ACTION-ROCKETDYNE ECP HAS-103 PROVIDES A REDESIGNED TRANSDUCER MOUNTING BRACKET AND PU VALVE PROTRACTOR. CORRESPONDING EDC ECPs ARE 3418 AND 3618.							880488
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	374-3-86-18 CT-98-24-3313 REL	FLIGHT 87-01847-7	7116 J80310	PALCS-4 -3	YES NO		880488
FAILURE MODE-MEASUREMENT P1328Y FAILED DURING THE INITIAL RISE OF THE ENGINE START SEQUENCE.							
SYSTEM EFFECT-NONE-LOSS OF THE AFFECTED MEASUREMENT ONLY.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-OPEN-THIS REPETITIVE FAILURE IS UNDER INVESTIGATION.							880488
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	CT-98-24-3311 REL	FAR 7-01731-9	1840 680317	368	YES BOURNS NO	YES BOURNS 7184-0-33-752	880488
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS FOUND TO BE READING LOW. A RESISTANCE CHECK OF THE 7500 OHM RESISTANCE ELEMENT SHOWED 5100 OHMS.							
CORRECTIVE ACTION-CONFIRMED FAILURE. A WIPER WEAR PATH ON THE MANREL CAUSED ADJACENT WINDING TO SHORT CIRCUIT. UNIT HAD BEEN INSTALLED WITHOUT CALIBRATION. CARE SHOULD BE TAKEN WHEN REMARKING UNITS AND MANREL TO BE MICROSCOPICALLY. ACTION WILL BE TAKEN TO INSURE THAT ONLY CALIBRATED UNITS WILL BE INSTALLED ON BOOSTERS.							880437
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	BLV-98-24-1081F REL	FAR 55-13331-9	880317	FACTORY	60/C		880437
FAILURE MODE-ELECTRICAL SHORT CIRCUIT. DIODE CR-28 WAS FOUND TO HAVE HIGH LEAKAGE IN BOTH FORWARD AND REVERSE DIRECTIONS. CAUSE UNKNOWN.							
CORRECTIVE ACTION-CAUSE UNDETERMINED. NO ACTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	CT-98-24-3313 REL	FAR 7-01720-3	1840 680318		YES BOURNS NO	YES BOURNS 73311-0-10-752	880437
FAILURE MODE-ERRATIC OPERATION. DURING FLIGHT ACCEPTANCE COMPOSITE TESTING THE TRANSDUCER EXHIBITED INTERMITTENT OUT							880437

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
TYP. THE WARNERS WAS LISTED BUT NO DISCREPANCIES WERE FOUND.							890470
CORRECTIVE ACTION-CONFIRMED FAILURE. THE INTERMITTENT OUTPUT WAS DUE TO THE LOW LEVEL VIBRATION THE TRANSDUCER EXPERIENCED DURING CHECKOUT. THE VIBRATION CAUSED THE POTENTIOMETER EPOXY TO MIGRATE UNDER THE WIPER. REMAINING 7-01720-3 BOURNS TRANSDUCERS ARE TO BE REMOVED FROM STOCK AND FROM VEHICLES AND ARE TO BE REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMPARATOR ERS	8LV-99-24-8089F FAR	87-01088-21	38-01 880311	FACTORY		FIFTH DIMENSION M NRXD-469	890443
FAILURE MODE-OUT OF SPECIFICATION. SLOW COMMUTATING SPEED OF 15 PERCENT WAS REPORTED. SPECIFICATION ALLOWS 5 RPS PLUS OR MINUS 10 PERCENT. FAILURE WAS CAUSED BY BROKEN COMMUTATOR GEAR MOTOR ARMATURE WINDINGS.							
CORRECTIVE ACTION-RAR 8LV-49-24-8384 ACTION ASCERTAINED VENDOR HAD INSTITUTED 100 PERCENT INSPECTION OF COMMUTATOR GEAR MOTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, HYDRAULIC P ERS	8LV-99-24-5032F FAR	69-01004-23	3302 880304	ETR		BOURNS 2023803001	890446
FAILURE MODE-LEAK. REPORTED B.T NOT CONFIRMED IN FAILURE ANALYSIS.							
CORRECTIVE ACTION-RAR 8LV-99-24-8374 WAS ISSUED REQUESTING CASE SEALING REQUIREMENTS DESIGN REVIEWED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	88C5089.1 UTP-PET	69-01003-33	880308	6D/C	YES BOURNS NO 2007371705		890181
FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE SPIKES EXCEEDED THE PLUS OR MINUS 2.5 PERCENT P.S. VOLTAGE DEVIATION REQUIREMENT. B/W 809-837. PET LOT 710-8.							
CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	88C4889.1 UTP-PET	87-01988-81	880308	AD/C	YES MIANCO NO 84103-13		
FAILURE MODE-THE INSULATION RESISTANCE WAS 10 MEGOHMS AT ROOM TEMPERATURE AFTER ACCELERATION. THE REQUIREMENT IS 50							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
MECHONS MINIMUM. S/N 811-0386. PET LOT 710-8.						
CORRECTIVE ACTION-MIANCO REPORTED THE CAUSE OF FAILURE AS BEING LEAKAGE AT THE FEEDTHROUGH TERMINALS. SOLDER FLUX WAS THE PRIMARY CAUSE. CORRECTIVE ACTION CONSISTS OF CONTROL OF FLUX USAGE DURING SOLDERING AND IMPROVED CLEANING AFTER SOLDERING. CONTROL IS EFFECTED BY INSULATION RESISTANCE CHECKS PERFORMED DURING FABRICATION AND TEST.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	SLV-99-24-2081F ABSOLUTE-PRESSURE.	FAR 89-01003-29	640301	FACTORY		SERVONICS 2081-1189
FAILURE MODE-ERRATIC OPERATION-DURING STANDARDS LAB INSPECTION. CAUSE WAS FOUND TO BE FROM CONTAMINATION IN TRANSDUCER OIL.						
CORRECTIVE ACTION-RAR 3LV-99-24-8372 INITIATED VENDOR IMPROVED FILTRATION OF OIL IN PROCEDURE 8EB-045.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	89C4589.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 87-01552-31	640229	607C	YES MIANCO NO	54103-13
FAILURE MODE-THE OUTPUT ERROR EXCEEDED THE ALLOWABLE DURING THE MINUS 95 DEGREES TEMPERATURE TEST. S/N 511-0388. PET LOT 710-2.						
CORRECTIVE ACTION-PROCUREMENT PROBLEM REPORT B-0272-RC WAS REQUESTED THE VENDOR TO DETERMINE THE CAUSE OF DEFICIENCY AND INITIATE ACTION TO PRECLUDE RECURRENCE. FINAL CLOSEOUT IS DEPENDENT ON THE PPR ANSWER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	89C4590.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 87-01552-49	640229	607C	YES MIANCO NO	54103-9
FAILURE MODE-DURING X-AXIS VIBRATION THE OUTPUT SIGNAL WAS OUT OF SPEC. S/N 512-0402 AND S/N 511-0333. PET LOT 710-1. AND 710-2.						
CORRECTIVE ACTION-SPEC. CONTROL DRAWING 87-01552 REVISION F MODIFIES THE ALLOWABLE ERROR BAND FROM PLUS OR MINUS 2.0 PERCENT TO PLUS OR MINUS 3.0 PERCENT. REF. CIC 88043-903-9-1. THIS ADJUSTMENT ACCOMMODATES THE ERROR BAND DISCREPANCY AS REPORTED. 4.0 PERCENT PBO (PEAK TO PEAK), I.E. PLUS OR MINUS 2.0 PERCENT PLUS STATIC ERROR.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	68C4780.1 DISP. TRANSDUCER	UTP-PET 66-01008-1	880228	GD/C	YES NO	YES SERVONICIN87.1 MC. 8041-0101	890133
FAILURE MODE - OUT OF TOLERANCE. AFTER REMOVAL OF THE CALIBRATION FIXTURE THE NOISE TEST WAS RUN AT MINUS 30 DEGREES F. AT 6 DEGREES PER SECOND ANGULAR RATE. THE NOISE WAS 800 MV. THE REQUIREMENT: 18 100 MV. MAX. 8/M 8180389. PET LOT F18-B.							
CORRECTIVE ACTION - THE SPECIFICATION WILL BE CHANGED TO DELETE THE NOISE CHECK AT MINUS 30 DEGREES F 18CM NUMBER 1 ON 87-01448 PER CIC 38133). A PPR WAS INITIATED AND SENT TO THE VENDOR FOR DETERMINATION OF PET IRREGULARITY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A1-440-01-303 CONNECTION	COMPOSITE-FRD/DPL 860224	303D	ABRESA-1	YES NO		890272
FAILURE MODE-ELECTRICAL OPEN. PLUG J-3 ON THE TELEPAR WAS LOOSE.							
SYSTEM EFFECT-NONE. SIX MEASUREMENTS INDICATED OPEN.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-THE PLUG WAS RECONNECTED PROPERLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A1-440-01-303 CONNECTION	COMPOSITE-FRD/DPL 87-01388-030	303D	ABRESA-1	YES NO		890270
FAILURE MODE-OUTPUT OF MEASUREMENT H33P WAS 22 PERCENT ABOVE THE EXPECTED TEST VALUE.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-THE TRANSDUCER WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A1-440-01-303 CONNECTION	COMPOSITE-FRD/DPL 860224	303D	ABRESA-1	YES NO		
FAILURE MODE-OUTPUT OF MEASUREMENT U81A WAS ERRATIC.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SIZE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-THE TRANSDUCER WAS REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	89C4390-1	UTP-PET	860223	60/C	YES	MIANCKO NO 84103-9
	FAILURE MODE-DURING P. C. AT MINUS 85 DEGREES F., THE OUTPUT EXCEEDED THE ALLOWABLE FOR 8/M 911-0339. DURING P. C. AFTER MINUS 85 DEGREES F., THE OUTPUT EXCEEDED THE ALLOWABLE FOR 8/M 818-0408. PET LOTS 710-1, AND 710-2.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	89C4390-1	UTP-PET	860222	60/C	YES	MIANCKO NO 84103-9
	FAILURE MODE-THE INSULATION RESISTANCE AT 165 DEGREES F. WAS MEASURED AS 42 MEGOHMS. THE REQUIREMENT IS 50 MEGOHMS MINIMUM. SERIAL NUMBER 3110333. PET LOT 710-1.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	89C4390-1	UTP-PET	860222	60/C	YES	MIANCKO NO 84103-13
	CORRECTIVE ACTION-MIANCKO REPORTED THE CAUSE OF FAILURE AS BEING LEAKAGE AT THE FEEDTHROUGH TERMINALS. SOLDER FLUX WAS THE PRIMARY CAUSE. CORRECTIVE ACTION CONSISTS OF CONTROL OF FLUX USAGE DURING SOLDERING AND IMPROVED CLEANING AFTER SOLDERING. CONTROL IS EFFECTED BY INSULATION RESISTANCE CHECKS PERFORMED DURING FABRICATION AND TEST.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	89C4390-1	UTP-PET	860222	60/C	YES	MIANCKO NO 84103-13
	FAILURE MODE-THE DIAMETER OF ONE OF THE MOUNTING HOLES IS 0.288 INCH. THE REQUIREMENT IS 0.199 TO 0.219 INCH. 8/M 9 11-0372. PET LOT 710-1.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	89C4390-1	UTP-PET	860222	60/C	YES	MIANCKO NO 84103-13
	CORRECTIVE ACTION-ENGINEERING DESIGN STATES THAT THE INSTALLATION OF THESE TRANSDUCERS WILL NOT BE MEASURABLY AFFECTED BY THE SLIGHTLY OVERSIZED HOLE. MIANCKO HAS RECTIFIED THE PROBLEM WITH THEIR SUBCONTRACTOR.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	89C4390-1	UTP-PET	860222	60/C	YES	MIANCKO NO 84103-13
	FAILURE MODE-FOUR DIMENSIONS WERE OUT OF TOLERANCE. ONE DIMENSION (9.30) SHOULD BE 0.30 MAX ON THE 60C DRAWING. THE OTHER THREE DIMENSIONAL DISCREPANCIES WERE THE RESULT OF POOR VENDOR 8-C. SERIAL NUMBER 801-0328. PET LOT 710-1.					

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							890324
	CORRECTIVE ACTION-60/C S.C. WILL SUBMIT A PROCUREMENT PROBLEM REPORT (PPR) TO THE VENDOR REQUESTING PRODUCT IMPROVE MENT. IT WOULD BE DIFFICULT FOR 60/C TO REJECT THESE UNITS FOR MINOR DIMENSIONAL DISCREPANCIES AS THERE IS A CRITICA L PARTS SHORTAGE ON THIS COMPONENT. 60/C ENGINEERING WILL CORRECT THE 0.50 INCH DIMENSION ON A DMR.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR8C9088-1 69-01003-35	UTP-PET 69-01003-35	660221	60%	YES BOURNS NO 2007371704	890183
	FAILURE MODE-DURING THE FIRST CALIBRATION RUN AT AMBIENT TEMP. (FOLLOWING EXPOSURE TO PLUS 300 DEGREES F.), MAXIMU M ERROR WAS PLUS 1.30 PERCENT F.S. AT 70 PERCENT OF RATED PRESSURE DECREASING. SPEC. LIMITS ARE 1.0 PERCENT F.S. MAX IMUM ERROR FOLLOWING 150 PERCENT PRESSURE APPLICATION WAS 1.17 PERCENT F.S. 3/M 602-3658. PET LOT 710-4.						
	CORRECTIVE ACTION-NONE REQUIRED, SINCE THE DISCREPANCY WAS PROBABLY CAUSED BY MISREADING OF THE PRESSURE GAGE.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	574-3-66-35 701413-5	FLIGHT 701413-5	730	660219	AR888-1 YES BORG-WARNER NO	890387
	FAILURE MODE-MEASUREMENT U101A WAS NOISY FOR A 15 SECOND PERIOD PRIOR TO BECO AND SHIFTED DOWN 0.76 FOR A 1 SECOND PERIOD AT 179 SECONDS. SLIGHT CONTAMINATION OF THE TRANSDUCER IS SUSPECT.						
	SYSTEM EFFECT-NONE.						
	VEHICLE EFFECT-NONE.						
	CORRECTIVE ACTION-THIS IS A REPETITIVE PROBLEM. THE VENDOR HAS IMPROVED ASSEMBLY AND INSPECTION PROCEDURES. NO OTH ER ACTION IS PLANNED.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	574-3-66-35	FLIGHT	730	660219	AR888-1 YES NO	890389
	FAILURE MODE-MEASUREMENT P187 FAILED TO PROVIDE VALID DATA AT ANY TIME DURING THE FLIGHT. EXACT FAILED ITEM IS UNKN OWN.						
	SYSTEM EFFECT-NONE-LOSS OF THIS MEASUREMENT ONLY.						
	VEHICLE EFFECT-NONE.						
	CORRECTIVE ACTION-NONE PLANNED.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	89C4889-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01952-88	880218	60/C	YES NO	MIANCKO 84103-81
<p>FAILURE MODE-DURING THE PROOF CYCLE AT 185 DEGREES F, THE INSULATION RESISTANCE WAS 23 MEGOHMS. THE REQUIREMENT IS 80 MEGOHMS MINIMUM. S/N 811-0378. PET LOT 710-2.</p> <p>CORRECTIVE ACTION-MIANCKO LETTER WTC-C-2771, DATED 4-28-66, VERIFIED THE FAILURE AND REPORTED THE CAUSE AS BEING LEAKAGE AT THE FEEDTHROUGH TERMINALS. SOLDER FLUX WAS THE PRIMARY CAUSE. CORRECTIVE ACTION CONSISTS OF CONTROL OF FLUX USAGE DURING SOLDERING AND IMPROVED CLEANING AFTER SOLDERING. CONTROL IS EFFECTED BY INSULATION RESISTANCE CHECKS PERFORMED DURING FABRICATION AND TEST.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	89C4889-007 DIFFERENTIAL PRESSURE TRANSDUCER	FLIGHT	7115 880218	PALCE-4 232	NO NO	MIANCKO
<p>FAILURE MODE-FAIL DURING OPERATION. MEASUREMENT P330P DISPLAYED CHARACTERISTICS INDICATIVE OF A FROZEN SENSE LINE.</p> <p>SYSTEM EFFECT-NONE-LOSS OF THE AFFECTED MEASUREMENT ONLY.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-OPEN-NAA IS ATTEMPTING TO ISOLATE POSSIBLE LOX LEAKAGE AREAS.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	89C4889-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01952-51	880218	60/C	YES NO	MIANCKO 84103-13
<p>FAILURE MODE-THE OUTPUT WAS OUT OF TOLERANCE DURING THE FIRST CALIBRATION RUN. S/N 811-0381. PET LOT 710-1.</p> <p>CORRECTIVE ACTION-PROCUREMENT PROBLEM REPORT B-0878-8C HAS BEEN SENT TO MIANCKO REQUESTING CORRECTIVE ACTION. FINAL CLOSEOUT IS DEPENDENT ON THE PPR ANSWER.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	89C4889-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01952-123	880218	60/C	YES NO	BOURNS 8023203003
<p>FAILURE MODE-OUT OF SPEC. INSULATION RESISTANCE AT 185 DEGREES F (DURING THE 3-HOUR STABILIZATION PERIOD) WAS 6.8 M OHMS. SPECIFICATION REQUIREMENT FOR INSULATION RESISTANCE IS 80 MEGOHMS MINIMUM. S/N 812-8141. PET LOT 710-1.</p>						

GENERAL DYNAMICS
CONVAIR DIVISION

19 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-CAR 6106 HAS BEEN ISSUED AND PPR B-0380-SC HAS BEEN SENT TO THE VENDOR ALONG WITH THE TEST UNIT. THIS PPR REQUESTS THAT THE VENDOR DETERMINE THE CAUSE OF THE DISCREPANCY, INITIATE CORRECTIVE ACTION AND NOTIFY 60/C						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	89C4894.1	UTP-PET 89-01004-129	840814	60/C	YES BOURNS NO 8023203003	890100
FAILURE MODE-OUT-OF TOLERANCE CONDITIONS OCCURRED DURING THE 1.8-P.T. TEST, MINUS 89 DEGREES F. TEMPERATURE TEST, A NO THE AFTER MINUS 89 DEGREES F. TEMPERATURE TEST. 8/N 812-0141. PET LOT 710-1.						
CORRECTIVE ACTION-CAR 6106 HAS BEEN INITIATED AND PPR B-0380-SC HAS BEEN SENT TO THE VENDOR ALONG WITH THE TEST UNIT. THIS PPR REQUESTS THAT THE VENDOR DETERMINE THE CAUSE OF DIFFICULTY, INITIATE CORRECTIVE ACTION AND NOTIFY 60/C.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC WIRING ERR	574-3-68-13	FLIGHT	840	ABRES-2 YES 840811 JETT NO		890400
FAILURE MODE-MEASUREMENT 82610 ERRONEOUSLY SENT TO ZERO PERCENT ISM DURING THE JETTISON SEQUENCE. WIRING DAMAGE AT VERNIER YAW ACTIVATION IS SUSPECT.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE. DATA AVAILABLE IS NOT SUFFICIENT TO DETERMINE THE CAUSE OF MALFUNCTION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER-WIRING ERR	574-3-68-13	FLIGHT	850	ABRES-2 YES 840811 87 NO		890401
FAILURE MODE-MEASUREMENT P28P ERRONEOUSLY DROPPED FROM 87 TO 10 PERCENT ISM. WIRING SHORT OR OPEN IS SUSPECT.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE-MALFUNCTIONS OF THIS NATURE HAVE BEEN INFREQUENT AND CORRECTIVE ACTION DOES NOT APPEAR TO BE WARRANTED.						

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1960

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	89F4188	UTP-PET 27-01552-33	890211	50/C	YES	WIANCKO NO 54103-21	090339
FAILURE MODE-TWO OF THE MOUNTING HOLE DIAMETERS EXCEEDED THE REQUIREMENT OF 0.195 TO 0.215 INCH. BOTH WERE 0.219 IN CH. S/N 511-0373. PET LOT 710-2.							
CORRECTIVE ACTION-WIANCKO HAS RECTIFIED THEIR PROBLEM. REF. WHITTAKER CORP. TXN WTC-B-2092X, DATED 3-3-66.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	89F4589	UTP-PET 27-01552-31	890211	50/C	YES	WIANCKO NO 54103-13	090332
FAILURE MODE-DIMENSION M (MOUNTING HOLES) IS OUT OF TOLERANCE FOR TWO OF THE FOUR HOLES. BOTH DIMENSIONS WERE MEASURED AS 0.220 INCHES. THE REQUIREMENT IS 0.195 INCH TO 0.215 INCH. SERIAL NUMBER 5110361. PET LOT 710-1.							
CORRECTIVE ACTION-ENGINEERING DESIGN STATES THAT THE INSTALLATION OF THESE TRANSDUCERS WILL NOT BE MEASURABLY AFFECTED BY THE SLIGHTLY OVERSIZE HOLES. WIANCKO HAS RECTIFIED THE PROBLEM WITH THEIR SUBCONTRACTOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	89F4590	UTP-PET 27-01552-49	890211	50/C	YES	WIANCKO NO 54103-9	090311
FAILURE MODE-TWO OF THE MOUNTING HOLE DIAMETERS EXCEEDED THE REQUIREMENT OF 0.195 INCH TO 0.215 INCH. ONE WAS 0.227 INCH, AND THE OTHER WAS 0.219 INCH. SERIAL NUMBER 511-0353. PET LOT 710-3.							
CORRECTIVE ACTION-WIANCKO HAS RECTIFIED THEIR PROBLEM. REF. WHITTAKER CORP. TXN WTC-B-2092X, DATED 3-30-66.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	89C4979.1	UTP-PET 89-01003-19	890208	50/C	YES	BOURNS NO 8004206303	090196
FAILURE MODE-OUT OF TOLERANCE. DURING THE PROOF CYCLE FOLLOWING VIBRATION, ERROR BANDS RELATIVE TO SPECIMEN OPERATIONAL PERFORMANCE EXCEEDED THE SPECIFICATION REQUIREMENT OF PLUS OR MINUS 1.0 PERCENT F.B. A NEGATIVE SHIFT IN THE CALIBRATION DATA WAS APPARENT THROUGHOUT THE RATED RANGE OF THE SPECIMEN. MAXIMUM ERROR WAS MINUS 3.03 PERCENT F.B. S/N 5611782. PET LOT 710-5.							
CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.							

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CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DATE	VEHICLE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE	TIME	OTH	VENDOR PART NO
INSTRUMENTATION-A/B	99C8017.1	UTP-PET	60/00	60/C	YES	BOURNS
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	89-01003-39	UTP-PET	60/00	60/C	NO	8007371707
ERS						
<p>FAILURE MODE-DURING VIBRATION IN THE Y-AXIS, DEVIATIONS FROM THE THEORETICAL OUTPUT EXCEEDED THE SPECIFICATION REQUIREMENT OF PLUS OR MINUS 2.5 PERCENT F.S. MAXIMUM DEVIATION WAS FROM PLUS 5 PERCENT TO MINUS 5 PERCENT F.S. AND OCCURRED AT A VIBRATION FREQUENCY OF 100 CPS. S/N 312-3373. PET LOT 710-6.</p>						
<p>CORRECTIVE ACTION-MEMO 983-9-86-26 INFORMS QUALITY ASSURANCE AND UTP INTEGRATION THAT ALL VIBRATION TESTS ARE TO BE PERFORMED IN THE VERTICAL PLANE. TRANSDUCERS ARE ACCEPTABLE FOR PRODUCTION USE. NO FURTHER ACTION REQUIRED BECAUSE THE MOST CRITICAL APPLICATION (RED-LINE) OCCURS PRIOR TO FLIGHT AND EXPOSURE TO VIBRATION.</p>						
INSTRUMENTATION-A/B	27C4761.1	UTP-PET	60/00	60/C	YES	LEWIS
TELEMETRY SET AND TRANSDUC HELIUM TEMPERATURE TRANSDUCER	7-01033-5	UTP-PET	60/00	60/C	NO	800348
ERS						
<p>FAILURE MODE-MOUNTING SURFACE DIMENSIONS WERE OUT OF TOLERANCE. SERIAL NUMBER 312-0349. THE 30 DEGREES PLUS OR MINUS 5 15 MINUTES BEVEL ANGLE MEASURED 31 DEGREES 14 MINUTES.</p>						
<p>CORRECTIVE ACTION-CONTINUE TEST ON THE SAME SPECIMEN. RETURN TO VENDOR AFTER TEST. VENDOR WAS NOTIFIED AGAIN TO CHECK ALL SPECIFIED DIMENSIONS DURING THE 1ST PER THE CONVAIR APPROVED PROCEDURE (LEWIS PROCEDURE LEIATP-4. 4-10-59). IN A MEETING HELD AT CONVAIR ON 1-27-66, THE VENDOR'S CHIEF ENGINEER, C. STEGNER, PROMISED TO DO THIS AT ONCE. 60/C 9A INSTRUCTED 60/C RECEIVING INSPECTION TO PERFORM MOUNTING DIMENSION EXAMINATION ON EACH PART OF PET LOT 710-11 AT 60 /C. DUE TO CONTINUED POOR WORKMANSHIP AND QC BY THE VENDOR, CONVAIR DESIGN, 983-9, IS REMOVING LEWIS AS AN APPROVED SOURCE FOR NEW PROCUREMENT ON ALL 7-01033 AND 7-01034 PARTS.</p>						
INSTRUMENTATION-A/B	99C4611.1	UTP-PAT	60/00	60/C	YES	ROSEMOUNT
TELEMETRY SET AND TRANSDUC HELIUM PRESSURE TRANSDUCER	7-01033-5	UTP-PAT	60/00	60/C	NO	1496
ERS						
<p>FAILURE MODE-MOUNTING SURFACE DIMENSIONS WERE OUT OF TOLERANCE. THE 30 DEGREES PLUS OR MINUS 15 MINUTES BEVEL ANGLE MEASURED 30 DEGREES 39 MINUTES. SERIAL NUMBER 309-0960.</p>						
<p>CORRECTIVE ACTION-TESTING IS TO BE HELD AWAITING SPECIMEN. THE DISCREPANT PART IS TO BE RETURNED TO THE VENDOR FOR REMOVAL OR REPLACEMENT. VENDOR STATES THAT ALL UNITS HAVE BEEN 100 PERCENT INSPECTED FOR MOUNTING SURFACE DIMENSIONS SINCE FEBRUARY 1966. ALL UNITS IN 60/C STOCK WERE CAREFULLY INSPECTED FOR MOUNTING SURFACE DIMENSIONS. ALL THOSE FAILING EXAMINATION WERE RETURNED TO THE VENDOR FOR REMOVAL OR REPLACEMENT.</p>						

GENERAL DYNAMICS
CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC MELLUM PRESSURE TRANSDUCER ERS	89C4818.1	UTP-PAT 7-01033-8	880807	80/C	YES NO	LEWIS 888348	880323
FAILURE MODE-MOUNTING SURFACE DIMENSIONS WERE OUT OF TOLERANCE. SERIAL NUMBER 311-1432. THE ENTIRE SEALING SURFACE APPEARED AS A CIRCULAR ARC WITH A RADIUS OF APPROXIMATELY 0.1 INCH.							
CORRECTIVE ACTION-TESTING TO BE CONTINUED ON ANOTHER SPECIMEN. DISCREPANT PART TO BE RETURNED TO VENDOR FOR REMARK OR REPLACEMENT. THE VENDOR HAS BEEN NOTIFIED TO CHECK ALL SPECIFIED DIMENSIONS DURING IAT. THE VENDOR WAS PROMISED TO DO THIS IMMEDIATELY PER CONVERSATION. WITH THE VENDOR CHIEF ENGINEER AT 60/C ON 1-27-66. ALL UNITS IN 60/C STOCK WERE CAREFULLY INSPECTED FOR MOUNTING SURFACE DIMENSIONS. ALL THOSE FAILING EXAMINATION WERE RETURNED TO VENDOR FOR REWORK OR REPLACEMENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	896-1-009	COMPOSITE-FRD/DPL	3050	ABREDA-1	YES NO		880278
FAILURE MODE-TELEMETRY FREQUENCY WAS OUT OF SPECIFICATION.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-THE TELEMETRY PACKAGE WAS IRED AND RETURNED TO SAN DIEGO FOR REPAIR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	PR-TSN-02-3001	COMPOSITE-FRD/DPL	3051	ETRIE	YES NO		880365
FAILURE MODE-MEASUREMENT H3SP DISPLAYED LEVEL VARIATIONS OF UP TO 13 PERCENT. PROBLEM ATTRIBUTED TO WIPER ARM LIFT OFF.							
SYSTEM EFFECT-NONE. LOSS OF SINGLE MEASUREMENT ONLY.							
VEHICLE EFFECT- NONE.							
CORRECTIVE ACTION-TRANSDUCER WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ANG. DISP. TRANSDUCER ERS	89C4803.1	UTP-PET 89-01008-1	880104	80/C	YES NO	SERVONICINST.1 MC. 3041-0101	
FAILURE MODE - OUT OF TOLERANCE. THE FUNCTIONAL CHECK - OUTPUT NOISE TEST AT MINUS 30 DEGREES F. SHOWED NOISE OF 89 DB MV. THE REQUIREMENT IS 100 MV MAX. DURING THE P. C. CAL. RUN, THE ERROR WAS GREATER THAN THE 3 PERCENT F8VR ALLOW							

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10 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
ABLE AT MINUS 30 DEGREES F. S/N 512-0389. PET LOT 710-2.							890138
CORRECTIVE ACTION - CAUSE OF THE NOISE IS UNKNOWN. THE OUTPUT ERROR WAS CAUSED BY AN IMPROPER CALIBRATION FIXTURE. THE SPECIFICATION WILL BE CHANGED TO DELETE THE LOW TEMPERATURE NOISE CHECK. A PPR WAS INITIATED AND SENT TO THE VENDOR FOR DETERMINATION OF THE PET IRREGULARITY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	FR6C4893.1	UTP-PET 69-01003-28	680204	60/C	YES	BOURNS NO 8007371702	890149
FAILURE MODE - OUT OF TOLERANCE. DURING THE MINUS 100 DEGREES F. TEMPERATURE ENVIRONMENT, ERROR BANDS RELATIVE TO SPECIMEN OPERATIONAL PERFORMANCE EXCEEDED THE SPECIFICATION REQUIREMENT OF PLUS OR MINUS 2.5 PERCENT F.S. MAXIMUM ERROR OF MINUS 9.3 PERCENT F.S. OCCURRED AT 20 PERCENT OF RATED PRESSURE. S/N 801-8643. PET LOT 710-4							
CORRECTIVE ACTION - THE FAILURE WAS CAUSED BY A DAMPING PLATE THAT WAS DAMAGED DURING REMOVAL AT THE VENDOR'S PLANT. RECEIVING INSPECTION HAS BEEN NOTIFIED TO SCREEN ALL UNITS IN THIS LOT THAT HAVE BEEN REMOVED BY THE VENDOR. THE VENDOR HAS NOTIFIED HIS INSPECTORS TO EXERCISE MORE CARE WHEN INSPECTING REMOVED UNITS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY, TRANSISTOR ERR	CT-TI-24-3305	FAR 27-12116-3	2900	FACTORY	YES	60/C NO	890487
FAILURE MODE-FAIL DURING OPERATION. THE TRANSDUCER POWER SUPPLY INDICATED A VOLTAGE SHIFT FROM 5 TO OVER 6 VOLTS DIRECT CURRENT OUTPUT DURING INTEGRATED BOOSTER TEST AT 85-0330-004-138.							
CORRECTIVE ACTION-FAILURE CONFIRMED. A TRANSISTOR WAS FOUND TO BE OPEN CIRCUITED. THE EXACT CAUSE OF FAILURE COULD NOT BE FOUND AS ONLY THE POWER SUPPLY WAS MADE AVAILABLE FOR ANALYSIS. P/N 33-13340-801; SERIAL NUMBER 124-D. 60/C ACTION CONSISTED OF ADVISING COMBINED SYSTEMS TEST STAND PERSONNEL OF THE RESULTS OF THIS ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER-PRESSURE ERR	SLV-9D-24-30337	FAR 69-01003-19	71-19	WTR	BOURNS 2004806309		890443
FAILURE MODE-FAILURE DURING OPERATION. THE TRANSDUCERS OUTPUT WAS NORMAL BETWEEN ZERO TO 35 PSIA. NO CHANGE IN OUTPUT OCCURRED WHEN PRESSURES ABOVE 35 PSIA WERE APPLIED. THIS PART MEASURES FUEL TANK PRESSURE.							
CORRECTIVE ACTION-FAR SLV-9D-24-30337 WAS SENT TO THE VENDOR ADVISING OF POSSIBILITY OF MANUFACTURING DISCREPANCIES.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSL. SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/S TELEMTRY SET AND TRANSDUC ANS. DISP. TRANSDUCER EBS	68C4803.1 TELEMTRY SET AND TRANSDUC ANS. DISP. TRANSDUCER EBS	UTP-PET 69-01003-3	660131	60/C	YES NO	SERVONICINST.1 MC. 9041-0103
<p>FAILURE MODE - OUT OF TOLERANCE. OIL LEAKED FROM AROUND THE FINE ADJUST SCREW AND FROM THE MIDDLE SCREW IN NEAREST IN C FINE FINE ADJUST SCREW OF THE COVER PLATE. POOR WORKMANSHIP AND INSUFFICIENT FINE ADJUSTMENT OF THE O-RING COMPRES SION CAUSED THE LEAK. S/N 511-0277. PET LOT 710-1.</p>						
<p>CORRECTIVE ACTION - SERVONIC REPLIED TO PPR B-0319-KC ON 8-10-66 STATING THAT THE ADJUSTMENT CAN O-RING GROOVE DIAM ETER HAS BEEN CHANGED FROM 0.251 PLUS OR MINUS 0.001 INCH TO 0.264 PLUS OR MINUS 0.001 INCH. AND THAT THE O-RING GRO OVE FINISH HAS BEEN CHANGED FROM 64 TO 32.</p>						
INSTRUMENTATION-A/S TELEMTRY SET AND TRANSDUC ANS. DISP. TRANSDUCER EBS	68C4780.1 TELEMTRY SET AND TRANSDUC ANS. DISP. TRANSDUCER EBS	UTP-PET 69-01003-1	660131	60/C	YES NO	SERVONICINST.1 MC. 9041-0101
<p>FAILURE MODE - OUT OF TOLERANCE. DURING THE MINUS 30 DEGREES F. TEMPERATURE TEST THE ERROR WAS GREATER THAN THE PLU S OR MINUS 3 PERCENT FSVR ALLOWABLE. THE FUNCTIONAL CHECK - OUTPUT NOISE TEST AT MINUS 30 DEGREES F. SHOWED NOISE OF APPROXIMATELY 220 MV. MAXIMUM ALLOWABLE IS 100 MV. S/N 5110303. PET LOT 710-1.</p>						
<p>CORRECTIVE ACTION - OUTPUT ERROR WAS CAUSED BY IMPROPER CALIBRATION FIXTURE AND METHODS. THE SPECIFICATION WAS CHAN GED TO DELETE THE LOW TEMPERATURE NOISE CHECK. A PPR WAS INITIATED AND SENT TO THE VENDOR FOR DETERMINATION OF THE P ET IRREGULARITY.</p>						
INSTRUMENTATION-A/S TELEMTRY SET AND TRANSDUC PRESSURE TRANSDUCER EBS	FR89C4834.1 TELEMTRY SET AND TRANSDUC PRESSURE TRANSDUCER EBS	UTP-PET 69-01004-123	660126	60/C	YES NO	BOURNS EBS 203203003
<p>FAILURE MODE-DIMENSION C PER FIGURE 1 OF PROCEDURE 69F4834 MEASURES 1.04 INCH. TOLERANCE IS 0.87 TO 1.03 INCH. MEAS UREMENT ACCURACY IS PLUS OR MINUS .001 INCH. S/N 5110389. PET LOT 710-1.</p>						
<p>CORRECTIVE ACTION-TESTING WAS CONTINUED TO COMPLETION. ACCUMULATION OF SOLDER AROUND MOUNTING HOLE INCREASED THICKEN ESS DIMENSION OF TRANSDUCER CASE OUTSIDE OF ALLOWABLE LIMITS. VENDOR HAS BEEN INFORMED AND QUALITY CONTROL HAS BEEN ALERTED AT THE VENDORS FACILITY.</p>						
INSTRUMENTATION-A/S TELEMTRY SET AND TRANSDUC PRESSURE TRANSDUCER EBS	FR89C4834.1 TELEMTRY SET AND TRANSDUC PRESSURE TRANSDUCER EBS	UTP-PET 69-01004-123	660124	FACTORY	YES NO	BOURNS EBS 203203003
<p>FAILURE MODE-OUT OF EXPECTED TEST VALVE. OUTPUT VOLTAGE FROM THE TRANSDUCER FOLLOWING AN 80V. 40MS TRANSIENT VOLTAGE</p>						

GENERAL DYNAMICS
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18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PHI OTM	VENDOR NAME VENDOR PART NO	
E WAS 9.020 VDC. PRIOR TO THE TRANSIENT VOLTAGE APPLICATION, THE OUTPUT VOLTAGE WAS 0.122 VDC. PRESSURE INPUT WAS APPROXIMATELY 14.7PSIA THROUGHOUT THE TEST. TEST ERROR IN VOLTAGE APPLICATION.							990748
CORRECTIVE ACTION-TEST PERSONNEL REINSTRUCTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-98-24-3034F FAR 89-01003-7	3302 660119	ETR			BOURNS 2004208701	990442
FAILURE MODE-FAILURE TO OPERATE AT PRESCRIBED TIME. DURING FUNCTIONAL TESTING NO OUTPUT WAS RECEIVED FROM THE TRANSDUCER. LOSS OF OUTPUT ATTRIBUTED TO PIN HOLE IN BELLOW.							
CORRECTIVE ACTION-RAR SLV-98-24-8875 WAS SENT TO THE VENDOR REQUESTING HIS REVIEW OF TRANSDUCER BELLOW'S CLEANING OF CORROSIVE SOLDER FLUX.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4783.1 TEMPERATURE LOG TEMPERATURE TRANSDUCER	UTP-PET 7-01649-9	660119	60/C		YES ROSEMOUNT YES 13446	990314
FAILURE MODE-DURING VIBRATION A SHORTED OR LOW IMPEDANCE CONDITION WAS NOTED FROM PIN A TO PIN B. AFTER VIBRATION A SHORTED CONDITION WAS FOUND BETWEEN PIN B AND CASE. SERIAL NUMBER 507-0703.							
CORRECTIVE ACTION-ROSEMOUNT SUBMITTED A VCP TO CHANGE THE CASE PACKING MATERIAL TO FIRM FOAM-TYPE PUTTING AS USED ON THE 55-01259 TEMPERATURE TRANSDUCERS. IT WAS APPROVED ON 2-21-66 BY ENGINEERING. VAF 7-01649-B-VCP-004.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4783.1 TEMPERATURE LOG TEMPERATURE TRANSDUCER	UTP-PET 7-01649-9	660119	60/C		NO ROSEMOUNT YES 13446	990313
FAILURE MODE-THE ELEMENT RESISTANCE FROM PIN A TO B MEASURED 310.00 OHMS AT 29.5 INCHES OF MERCURY PRESSURE. IT SHOULD HAVE BEEN 499.1 PLUS OR MINUS 1.5 OHMS. SERIAL NUMBER 507-0703.							
CORRECTIVE ACTION-THE OUT OF TOLERANCE CONDITION COULD NOT BE VERIFIED. VALUES DURING THE REMAINDER OF THE TEST WERE SATISFACTORY. THE CONDITION WAS PRESUMED TO BE A TESTING ERROR.							
							PAGE 0001

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15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRE DIF TIME	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	80C/AS083-001-058/FC-CO-01-0038-00 COMPOSITE-FACTORY TELEMETRY -COMMUNICATOR-	860117 87-01638-81	860117 860117	FACTORY	YES FIFTH DIMENSION NO N	080814
FAILURE MODE-FAIL DURING OPERATION. THE CHANNEL #13 COMMUNICATOR INDICATED 4.878PS DURING THE TEST. A MINIMUM OF 4.25 RPS IS ALLOWED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	80C/AS083-001-058/FC-CO-01-0038-00 COMPOSITE-FACTORY TELEMETRY -COMMUNICATOR-	860117 87-01638-81	860117 860117	FACTORY	YES FIFTH DIMENSION NO N	080814
FAILURE MODE-DURING VIBRATION IN THE Y AXIS, DEVIATIONS RELATIVE TO SPECIMEN OUTPUT VOLTAGE EXCEEDED THE SPECIFICAT ION REQUIREMENT OF PLUS OR MINUS 2.5 PERCENT F.S. SINUSOIDAL DEVIATIONS IN EXCESS OF PLUS OR MINUS 4 PERCENT F.S. WE RE OBSERVED. STATIC PRESSURE INPUT TO THE SPECIMEN WAS 450 PSIA. MAXIMUM DEVIATION OCCURRED AT APPROXIMATELY 100 CPS VIBRATION FREQUENCY. 8/N 310-8431. PET LOT 710-3.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	80C/AS083-001-058/FC-CO-01-0038-00 COMPOSITE-FACTORY TELEMETRY -COMMUNICATOR-	860117 87-01638-81	860117 860117	FACTORY	YES FIFTH DIMENSION NO N	080814
CORRECTIVE ACTION-NEW 983-9-36-26 INFORMS QUALITY ASSURANCE AND UTP INTEGRATION THAT ALL VIBRATION TESTS ARE TO BE PERFORMED IN THE VERTICAL PLANE. TRANSDUCERS ARE ACCEPTABLE FOR PRODUCTION USE. NO FURTHER ACTION REQUIRED BECAUSE THE MOST CRITICAL APPLICATION (RED-LINE) OCCURS PRIOR TO FLIGHT AND EXPOSURE TO VIBRATION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	80C/AS083-001-058/FC-CO-01-0038-00 COMPOSITE-FACTORY TELEMETRY -COMMUNICATOR-	860117 87-01638-81	860117 860117	FACTORY	YES FIFTH DIMENSION NO N	080814
FAILURE MODE-MOUNTING SURFACE DIMENSIONS WERE OUT OF TOLERANCE. SERIAL NUMBER 310-0344 (483L).						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	80C/AS083-001-058/FC-CO-01-0038-00 COMPOSITE-FACTORY TELEMETRY -COMMUNICATOR-	860117 87-01638-81	860117 860117	FACTORY	YES FIFTH DIMENSION NO N	080814
CORRECTIVE ACTION-OBTAIN A NEW TEST SPECIMEN. VENDOR HAS BEEN NOTIFIED TO CHECK ALL SPECIFIED DIMENSIONS ON EACH PA RT DURING THE IAT (LEWIS PROCEDURE LEIATP-4, 4-10-89). 80/C 8A INSTRUCTED 80/C RECEIVING INSTRUCTION TO PERFORM MOUN TING DIMENSION EXAMINATION ON EACH PART OF PET LOT 710-11 AT 60/C. DUE TO CONTINUED POOR WORKMANSHIP AND SC BY THE V ENDOR, CONVAIR DESIGN, 983-9, IS REMOVING LEWIS AS AN APPROVED SOURCE FOR NEW PROCUREMENT ON ALL T-91633 AND T-91634 PARTS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	80C/AS083-001-058/FC-CO-01-0038-00 COMPOSITE-FACTORY TELEMETRY -COMMUNICATOR-	860117 87-01638-81	860117 860117	FACTORY	YES FIFTH DIMENSION NO N	080814
FAILURE MODE-OUT OF TOLERANCE. TELEMETRY DISPLAYED 18 PERCENT NOISE ON ALL CHANNELS. MAXIMUM OF 8 PERCENT IS ALLOWE D.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-RAR 8LV-80-84-8577 REQUESTING 60/C SURVEY AND RECYCLE ALL TELEMETERS NOT INCLUDED IN ECP 3494.						
INSTRUMENTATION-A/B 789C4884.1						
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	UTP-PET	660107	FACTORY	YES	BOURNS	NO 202203003
FAILURE MODE-FAIL TO OPERATE AT THE PRESCRIBED TIME. THE TRANSDUCER WAS NON-OPERATIVE FOLLOWING THE REVERSE EXCITATION SUSCEPTABILITY TEST.						
CORRECTIVE ACTION-ECP 3643 INITIATED WHICH GIVES REVERSE VOLTAGE PROTECTION ON -223.						
INSTRUMENTATION-A/B 89C4847.1						
TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER	UTP-PET	660103	FACTORY	YES	ROSEMOUNT	NO 150FD
FAILURE MODE-OUT OF TOLERANCE. TWO UNITS SHOWED OUT OF TOLERANCE RESPONSES AS FOLLOWS. TIME CONSTANT 1.4 AND 1.6 SEC WHERE 0.5 SEC ALLOWED. RESPONSE TIME 3.8 AND 9.8 SEC WHERE 3.0 SEC ALLOWED. FAILURE CONFIRMED, CAUSE NOT DETERMINED.						
CORRECTIVE ACTION-THE VENDOR WAS NOTIFIED AND THE SPECIFICATION WAS CHANGED TO ALLOW A MORE REALISTIC TIME CONSTANT. UNITS PASS NEW SPECIFICATION.						
INSTRUMENTATION-A/B 789C4883.1						
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	UTP-PET	660103	FACTORY	YES	BOURNS	NO 202203003
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. FOLLOWING THE TRANSIENT VOLTAGE TEST, NO OUTPUT WAS OBTAINED FROM THE TEST SPECIMEN. OUTPUT VOLTAGE WAS ERRATIC IMMEDIATELY FOLLOWING THE REVERSE EXCITATION SUSCEPTABILITY TEST. HOWEVER IT STABILIZED AFTER ABOUT 1 MINUTE. THE REVERSE EXCITATION TEST PRECEDED THE TRANSIENT VOLTAGE TEST. FAILURE DUE TO REVERSE VOLTAGE.						
CORRECTIVE ACTION-ECP 3643 ADDS REVERSE VOLTAGE PROTECTION TO -223.						
INSTRUMENTATION-A/B 90C/3K785-DYD/401-00-89						
TELEMETRY SET AND TRANSDUC TRANSMITTER	FLIGHT	830	9-2	YES	SENDIN	NO
FAILURE MODE-OUT OF SPECIFICATION. COMMUTATED WAVEFORMS BEGAN TO SHOW SIGNS OF LOW SIGNAL STRENGTH AT APPROXIMATELY						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP TIME	PRI OTH	VENDOR NAME VENDOR PART NO
100 SECONDS. PROBLEM CAUSED BY COMBINED EFFECTS OF POOR ANTENNA LOOK ANGLE AND LESS THAN NORMAL TRANSMITTER POWER.						
SYSTEM EFFECT-OPERATION TOO LOW, AS RESULT OF LOW SIGNAL STRENGTH, DATA WAS VERY NOISY AFTER 210 SECONDS AND WAS USABLE ONLY FOR BRIEF PERIODS AFTER THIS TIME.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE. PROBLEM CONSIDERED TO BE AN ISOLATED CASE.						
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC TELEPAK CANISTER ERS	BLV-AB-24-3048-P	PAR 69-11100-849	691220	FACTORY	YES NO	
FAILURE MODE-STRUCTURAL. UNIT REPORTEDLY FAILED BY INDICATING THAT THE 100-PERCENT CALIBRATION PULSES ON ALL COMMUTATED CHANNELS WERE IN EXCESS OF 120 PERCENT OF THE INFORMATION BANDWIDTH. THE CAUSE OF FAILURE WAS A BROKEN SILICON BAR OF RESISTOR 8-1 IN THE 95-13540-817 POWER SUPPLY BEING PAC-TORQUE.						
CORRECTIVE ACTION-FAILURE WAS CONFIRMED. 60/C PERSONNEL ALERTED REGARDING POSSIBLE LOOSE MOUNTING OF THE POWER SUPPLY. REF. BAR BLV-AB-24-3155. BAR BLV-AB-24-8256 SENT TO TELEMETRY DESIGN CONCERNING THE USE IN THE 95-13540-817 POWER SUPPLY OF A COMPONENT NOT MEETING THE TELEMETRY VIBRATION SPECIFICATIONS.						
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	99C4979-1	UTP-PET 69-01003-29	691209	60/C	YES NO	BOURNS E007371707
FAILURE MODE-OUT OF SPECIFICATION. DURING VIBRATION ON THE Y-AXIS, ERROR BANDS RELATIVE TO SPECIMEN, OUTPUT VOLTAGE RATIO EXCEEDED SPECIFICATION REQUIREMENTS. MAXIMUM ERRORS OBSERVED AT 100 CPS WERE PLUS 3.2 PERCENT AND MINUS 3.0 PERCENT FULL SCALE SINUSOIDAL OUTPUT. THE SPECIFICATION REQUIREMENT IS PLUS OR MINUS 2.5 PERCENT FULL SCALE, MAXIMUM.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	99C4979-1	UTP-PET 69-01003-19	691209	60/C	YES NO	BOURNS E004208304
FAILURE MODE-CONTAMINATION. AFTER STABILIZATION AT -100 DEG F, THE OUTPUT VOLTAGE RATIO DROPPED TO 9.79 PERCENT WITH INLET PRESSURE OF 28 PERCENT. SUBSEQUENT OPERATION AT ROOM TEMPERATURE WAS NORMAL. CUTTING OIL ON THE ELEMENT. INTRODUCED DURING REWORK AT VENDORS PLANT. FORMED AND INSULATING FILM. S/N 911-9789. PET LOT 710-4.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-VENDOR HAS ESTABLISHED SPECIAL CLEANING FOR REWORKED UNITS.							001113
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	8LV-A8-24-3048F	FAR	71-20	FACTORY		KISTLER	000448
	ACCELEROMETER	87-01988-7	051808			303M47	
FAILURE MODE-OUT OF SPECIFICATION. DUE TO TEMPERATURE SENSITIVITY. UNIT MEASURES ACCELERATION.							
CORRECTIVE ACTION-INFORMATIVE TYPE RAR 8LV-A8-24-3588 WAS FORWARDED TO THE VENDOR ADVISING OF THE FAILURE SYMPTOMS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	88C4593	UTP-PET	051124	50/C		YES SERVONIC	001180
	PRESSURE TRANSDUCER	69-01003-19				NO 3031-2119	
FAILURE MODE-OUT OF SPECIFICATION. TWO UNITS WERE REJECTED DURING 2-AXIS VIBRATION TESTING WHEN THE MAXIMUM PEAK TO PEAK SINUSOIDAL OUTPUT VOLTAGE ERRORS WERE 7 PERCENT AND 10 PERCENT RESPECTIVELY. SPECIFICATION LIMITS ARE PLUS OR MINUS 2.5 PERCENT FULL SCALE. THE FAILURES WERE CAUSED BY IMPROPERLY ADJUSTED COUNTER BALANCES.							
CORRECTIVE ACTION-THESE TWO UNITS WILL BE RETURNED TO THE VENDOR FOR REWORK TO SPECIFICATIONS. ALL SERVONIC 69-0100 3-7, -13, -19, AND -21 UNITS ARE TO BE RETURNED TO THE VENDOR VIA SURVEY 91-85 REVISION A. EACH UNIT WILL BE VIBRATE D TO PROVE COMPLIANCE WITH SPECIFICATIONS. THE UNITS THAT DO NOT COMPLY WITH SPECIFICATIONS WILL BE REWORKED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	88C4593	UTP-PET	051122	50C		YES SERVONIC	001187
	PRESSURE TRANSDUCER	69-01003-19				NO 3031-2119	
FAILURE MODE-ERRATIC OPERATION. TWO UNITS WERE REJECTED WHEN THE MAXIMUM OUTPUT VOLTAGE SPIKES WERE MINUS 5 PERCENT FULL SCALE AT 88 CPS AND MINUS 3.8 PERCENT FULL SCALE AT 34 CPS RESPECTIVELY. DURING THE 2-AXIS VIBRATION SWEPT. SP ECIFICATION LIMITS ARE PLUS OR MINUS 2.5 PERCENT FULL SCALE.							
CORRECTIVE ACTION-ALTHOUGH THE REPORTED FAILURE WAS NOT CONFIRMED, THE LOT, LOT NUMBER 885-0-18, WAS REJECTED BECAU SE OF FAILURES REPORTED IN LOT NUMBERS 885-0-17, 18, AND 20.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	88C4593.1	UTP-PET	051122	FACTORY		YES BOUNDS	
	PRESSURE TRANSDUCER	69-01003-38				NO 8007371703	
FAILURE MODE-OUT OF SPECIFICATION. THE THICKNESS OF THE TRANSDUCER WAS 1.188 INCHES. SPECIFIED IS 1.18 PLUS OR MINU S 0.03 INCHES.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							000787
	CORRECTIVE ACTION-VENDOR WILL BEGIN 100 PERCENT CHECK OF CASES AND WILL REVISE DRAWING TO DECREASE MAXIMUM ALLOWABLE THICKNESS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	89C4930-1 89C4930-1	UTP-PET 89-01003-31	851110	60/C	YES	8007371703 BURNS	000348
	FAILURE MODE-OUT OF SPECIFICATION. WHILE VIBRATING IN THE X-AXIS, SPIKES OF -4.0 PERCENT WERE MOMENTARILY NOTED AT 723 CPS. THIS PHENOMENON DID NOT REPEAT DURING A SECOND SWEPT FROM 800 -1100 CPS AND BACK. ALSO FAILURE WAS NOT CONFIRMED BY VENDOR.						
	CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ABSOLUTE PRESSURE TRANSDUCER ERS	8LV-98-24-3566-P 8LV-98-24-3566-P	PAR 89-01003-39	3001	ETR	YES	80091-1139 SERVONIC	000338
	FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED WHEN IT WAS FOUND TO BE NON-LINEAR. WHEN 800 PSIA WAS APPLIED, THE TRANSDUCER OUTPUT INDICATED 750 PSIA AND WITH 3000 PSIA APPLIED, THE TRANSDUCER OUTPUT INDICATED 8400 PSIA. FAILURE ATTRIBUTED TO EXCESSIVE USE AND HIGH WIPER TENSION.						
	CORRECTIVE ACTION-FAILURE CONFIRMED. VENDOR TO INSURE WIPER TENSION IS CORRECT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	27C4386-1 27C4386-1	UTP-PET 7-01648-11	857110	FACTORY	YES	800744 ROSEMOUNT NO 134AC	000744
	FAILURE MODE-OUT OF SPECIFICATION. THE MOUNTING SURFACE DIMENSION FOR THE O-RING SEAL WAS OUT OF TOLERANCE BY PLUS 0.001 INCH. THE FAILURE WAS THE RESULT OF ONLY 80 PERCENT INSPECTION BY VENDOR.						
	CORRECTIVE ACTION-60/C REVISED VENDOR IAT TO CHECK ALL SPECIFIED DIMENSIONS ON EACH PART. 60/C RECEIVING INSPECTION WAS INSTRUCTED TO PERFORM 100 PERCENT MOUNTING DIMENSION EXAMINATION ON EACH PART OF PET LOT 710-2.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER, TEMPERATURE. ERS	SLV-99-24-3030	FAR 7-01604-7	681108	FACTORY		ROSEMOUNT ENG. 152F 080434
FAILURE MODE-ELECTRICAL OPEN CIRCUIT. DUE TO BROKEN SENSOR WIRE PROBABLY DUE TO MISHANDLING.						
CORRECTIVE ACTION-RAR SLV-99-24-4371 REQUESTING IMPROVED HANDLING PROCEDURES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	69C4592.1	UTP-PET 69-01003-13	681103	60/C	YES BOURNS NO 2004206304	091116
FAILURE MODE-OUT OF SPECIFICATION. DURING THE CALIBRATION FOR FINAL SATISFACTORY PERFORMANCE TEST, THE MAXIMUM ERROR WAS +1.34 PERCENT. ALLOWED IS + OR - 1.0 PERCENT AND SYSTEM ACCURACY IS + OR - 0.21 PERCENT. CAUSE OF THE DISCREPANCY IS UNKNOWN. S/N 508-1591, PET LOT 710-3.						
CORRECTIVE ACTION-VENDOR WILL VIBRATE EACH UNIT IN THIS LOT /710-3 AND -3/ AND REMARK ALL UNITS THAT DO NOT PASS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	69C4597	UTP-PET 69-01003-33	681102	60/C	YES BOURNS NO 2007371704	091131
FAILURE MODE-ERRATIC OPERATION. DURING VIBRATION IN THE X-AXIS, VOLTAGE SPIKES EXCEEDED MINUS 4 PERCENT OF FULL SCALE OUTPUT. SPECIFICATION LIMITS ARE PLUS OR MINUS 2.5 PERCENT OF FULL SCALE OUTPUT. THE CAUSE OF THE DISCREPANCY IS UNKNOWN.						
CORRECTIVE ACTION-SPECIFICATION 27-01443-7 WAS CLARIFIED PER CIC 33977. PERFORM THE VIBRATION TEST USING A CAPACITOR PER CIC 33977.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	69C4592.1	UTP-PET 69-01003-13	681101	60/C	YES BOURNS NO 2004206304	091117
FAILURE MODE-OUT OF SPECIFICATION. DURING VIBRATION ON THE Z-AXIS, VOLTAGE SPIKES EXCEEDED -5 PERCENT F.S.O. SPECIFICATION LIMITS ARE + OR -2.5 PERCENT F.S.O. THE CAUSE WAS IMPROPERLY ADJUSTED BEARINGS. S/N 507-3853, PET LOT 710-2						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	27C4737.1 FAILED COMPONENT NAME	UTP-PET 87-01847-3	651101	60/C	YES	LEWIS ENGR. CO NO 87123088	891832
FAILURE MODE-LEAK-EXTERNAL. DURING PET INITIAL SATISFACTORY PERFORMANCE TEST WITH PROBE OF SPECIMEN AT 910 DEGREES F AND HEAD OF SPECIMEN AT 670 DEGREES F, WHILE IN A 3,000 PSI CHAMBER, A LEAK OCCURRED THROUGH CERAMIC BONDING AROUND PINS - CAUSED BY PRESSURE SEALING MATERIAL /PYRO CERAM/ MELTED AND ALLOWED PRESSURIZED GAS TO LEAK THROUGH PROBE HEAD.							
CORRECTIVE ACTION-PET PROCEDURE WAS NOT CLEAR REGARDING HEAD TEMPERATURE LIMITATION /AIR COOLING/ PET TEST PROCEDURE WAS REVISED TO CLARIFY TEST METHOD OF HIGH TEMPERATURE/HIGH PRESSURE TEST TO KEEP HEAD TEMPERATURE AT OR BELOW 800 DEGREES F. C10TH LUG NO 833-0-010.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	67C4592 FAILED COMPONENT NAME	UTP-PET 79-01003-13	651027	60/C	NO	BURNS NO 2004206304	891119
FAILURE MODE-OUT OF SPECIFICATION. AT - 100 DEGREES F, OUTPUT ERROR WAS -2.24 PERCENT. ALLOWED IS PLUS OR MINUS 2.0 PERCENT. SYSTEM ACCURACY WAS PLUS OR MINUS 0.21 PERCENT. FAILURE WAS NOT CONFIRMED DURING REPEAT TEST. CAUSE IS TEST EQUIPMENT ERROR. 8/M 507-3813. PET LOT 710-8.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	30C4503.1 FAILED COMPONENT NAME	UTP-PET 89-01003-19	651026	60/C	NO	BURNS NO 2004206305	891129
FAILURE MODE-OUT OF SPECIFICATION. DURING THE PROOF CYCLE AFTER MINUS 100 DEGREES F, WITH AN INPUT PRESSURE OF 97 PERCENT THE OUTPUT PRESSURE WAS 93.93 PERCENT AND 93.92 PERCENT DURING THE TWO RUNS WITH INCREASING PRESSURE. THE REQUIREMENT IS 97 PLUS OR MINUS 1.0 PERCENT. THE DISCREPANCY WAS CAUSED BY OUTF GASSING OF INTERNAL PARTS WHICH CAUSED A CHANGE IN REFERENCE PRESSURE. SINCE THIS PART ACTUALLY MEETS THE LONG TERM STABILITY REQUIREMENTS, THE TEST DISCREPANCY IS NOT A FAILURE.							
CORRECTIVE ACTION-AS OF SEPTEMBER 1968 THE VENDOR HAS STARTED SUBJECTING ALL CAPSULE TYPE TRANSDUCERS TO A VACUUM BAKE BEFORE SEALING.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-COMMUNICATOR ERS	SLV-49-24-30487	PAR 69-31100-849	71-18 681026	FACTORY		60/C 090444
FAILURE MODE-OUT OF SPECIFICATION. COMMUNICATOR SPEED VARIED ABOVE THE ALLOWABLE 10 PERCENT.						
CORRECTIVE ACTION-RAR SLV-49-24-6569 WA ISSUED TO THE COMMUNICATOR VENDOR REQUESTING IMPROVED QUALITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	69C4850-1	UTP-PET 69-01003-31	651021	60/C	NO BOURNS NO 2007371703	092346
FAILURE MODE-OUT OF SPECIFICATION. OVERALL WIDTH OF TRANSDUCER IS 1.320 INCHES. SPECIFIED IS 1.040 PLUS OR MINUS 0.015 INCHES.						
CORRECTIVE ACTION-DRAWING 69-01003 WAS CHANGED BY REV. M TO SPECIFY 1.54 PLUS OR MINUS 0.05 INCHES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	69C4794	UTP-PET 69-01003-33	651021	60/C	YES SERVONIC NO 2091-1139	092309
FAILURE MODE-OUT OF SPECIFICATION. THREE UNITS WERE REJECTED WHEN THEY HAD OUT OF TOLERANCE SPIRING DURING VIBRATION TESTING. THE SPECIFIED VIBRATION ERROR BAND IS PLUS OR MINUS 2.5 PERCENT. THE SPIRING WAS PROBABLY CAUSED BY OIL CONTAMINATION, LOW WIPER TENSION, OR WIPER RESONANCE. TWO OF THE UNITS WERE RETURNED TO THE VENDOR. THESE TWO FAILURE S WERE CONFIRMED. THE CAUSE OF FAILURE WAS NOT DETERMINED.						
CORRECTIVE ACTION-SPECIFICATION 87-01145 WAS REVISED TO CLARIFY TRANSDUCER LOAD IMPEDANCE TO BE EMPLOYED DURING TEST T. SUBSEQUENT REVISION OF TEST PROCEDURE 69A3658-1 WILL RESULT IN A TEST ENVIRONMENT COMPATIBLE WITH OPERATIONAL USE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	69C4555-1	UTP-PET 69-01003-29	651021	FACTORY	YES BOURNS NO 2007371702	
FAILURE MODE-OUT OF SPECIFICATION. THE MEASUREMENT FROM THE END OF THE PRESSURE FITTING TO THE CENTER OF THE NEARER T MOUNTING HOLE IS 0.849 INCHES. THE TOLERANCE IS 0.992 PLUS OR MINUS 0.010 INCHES AND THE MEASUREMENT ACCURACY IS 0.001 INCHES.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP TIME	PRI DIP TIME	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-DIMENSIONAL REQUIREMENT IS REDEFINED BY DRAWING 69-01003 REV. H, TO 0.98 PLUS OR MINUS 0.03 INCHES.							690773
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TELEPAR CANISTER ERS							690537
<p>FAILURE MODE-OUT OF TOLERANCE. UNIT FAILED IN FINAL TELEMETRY SYSTEM CHECKOUT BY INDICATING THAT THE CHANNEL C ZERO PERCENT CALIBRATION PULSE WAS 96 PERCENT OF DESIGN BANDWIDTH BELOW THE 100-PERCENT CALIBRATION PULSE. (SPECIFICATION ALLOW 60 PLUS OR MINUS 4 PERCENT. UNIT WAS INADVERTENTLY OPENED AND DEPOTTED BEFORE AN ATTEMPT WAS MADE TO ADJUST ITS FREQUENCY AND SENSITIVITY CONTROLS.</p> <p>CORRECTIVE ACTION-FAILURE CONFIRMED. BECAUSE THE ULTIMATE CAUSE OF FAILURE COULD NOT BE FOUND, NO SPECIFIC ACTION WAS REQUESTED. A COPY OF FAR WAS SENT TO FACTORY PERSONNEL RESPONSIBLE FOR TELEMETRY MANUFACTURE AND TO DATA EVALUATION GROUP PERSONNEL RESPONSIBLE FOR MAINTAINING COMPLETE DATA RECORDS.</p>							691529
<p>INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS</p> <p>FAILURE MODE - OUT OF SPECIFICATION. WITH AN INPUT PRESSURE OF 97 PSIA, THE OUTPUT WAS 93.2 PERCENT OF THE FULL SCALE VOLTAGE RATIO. THE REQUIREMENT IS 97.0 PLUS OR MINUS 10 PERCENT. THE BELLOWS STOP, AFTER A PRESUMABLY NORMAL ADJUSTMENT, HAD NOT BEEN LOCKED IN PLACE DURING THE VENDOR'S MANUFACTURING PROCESS. S/N 908-1399. PET LOT 710-1.</p> <p>CORRECTIVE ACTION-THE VENDOR WILL REVIEW HIS PROCESS CONTROL TO INSURE THAT ALL UNITS ARE INSPECTED AFTER BELLOWS STOP ADJUSTMENT AND SECURING.</p>							690542
<p>INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS</p> <p>FAILURE MODE-OUT OF TOLERANCE. UNIT REPORTEDLY INDICATED A MINUS 7 PERCENT OUTPUT ERROR AT ZERO PSID ON TELEMETRY RECORDING FC-CO-01-0085-00'S ON MEASUREMENTS.</p> <p>CORRECTIVE ACTION-FAILURE OF THE TRANSDUCER WAS NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.</p>							690542

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE FACTORY	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER ASSEMBLY ERS	RLV-88-24-8043-P ACCELEROMETER ASSEMBLY	FAR 27-11870-28	681007	FACTORY	YES	DOHNER NO 4310F-1/2A	000039
FAILURE MODE-ERRATIC OPERATION. THE UNIT WAS REJECTED BECAUSE OF ERRATIC OUTPUT. AFTER CALIBRATION AND TESTING IN F ALLU ANALYSIS, NO OUT OF SPECIFICATION OPERATION WAS EVIDENT.							
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRAY UC TLM CANISTER-CONNECTOR ERS	RLV-88-24-5039-P UC TLM CANISTER-CONNECTOR	FAR 68-11100-239	5301 630928	ETR	YES NO		001422
FAILURE MODE-ERRATIC OPERATION. INTERMITTENT DROPOUT ON ALL CHANNELS FROM NORMAL 2000 MV TO 800 MV AT RECEIVER STAT ION. THE 200 MV READING REPORTED AS RADIATION FROM ANOTHER TELEMETRY ON A OTHER RANGE TEST. OBSERVATION PLACED A D ROPOUT AS LASTING ABOUT 1 MINUTE. POSSIBLE CAUSES OF REPORTED FAILURE ARE POOR ELEC CONNECTION, MONETARY SHIELDING, REFLECTIONS OF RADIATED ENERGY CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED. RESPONSIBLE ENGINEER INFORMED OF THE F INDINGS AND THE POSSIBILITY OF A POOR ELECTRICAL CONNECTION ABOARD THE BOOSTER WAS STRESSED.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED. RESPONSIBLE ENGINEER INFORMED OF THE FINDINGS AND THE POSSIBILITY OF A POOR ELECTRICAL CONNECTION ABOARD THE BOOSTER WAS STRESSED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CRYSTAL RECTIFIED-TRANSFORMER ERS	FR69C4251.1 CRYSTAL RECTIFIED-TRANSFORMER	UTP-GUAL/PPT 27-01379-1	630922	60/C	YES	60/C NO	002284
FAILURE MODE-STRUCTURAL. DURING SECTIONING TEST, ONE TEST SPECIMEN EXHIBITED A VOID IN THE POTTING COMPOUND OF APPR OXIMATELY 0.1 INCH IN DIAMETER. THE LENGTH OF VOID WAS ABOUT 0.5 INCHES. THIS WAS CAUSED BY GLASS WRAP TRAPPING AIR BETWEEN THE COILS WHEN THE PORES WERE CLOSED BY RESIN DURING CONSTRUCTION.							
CORRECTIVE ACTION-60/C GENERAL CONSTRUCTION SPEC NOTE WAS ADDED ON 8-10-65 TO BLIT GLASS WRAP BETWEEN COILS OF MUTI -BOBIN TRANSFORMERS. REF. CTCN NO. 991-4-024.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	PET-TP-2-0280.1 PRESSURE TRANSDUCER	UTP-PET 7-01731-1	630922	FACTORY	YES	BOURNS NO 71724-0-8-732	
FAILURE MODE-OUT OF TOLERANCE. DURING HIGH TEMPERATURE (PLUS 300 DEG F), UNIT EXHIBITED OUTPUT VOLTAGE ERROR OF -2 35 PERCENT F.S. WHERE PLUS OR MINUS 2.0 PERCENT F.S. IS ALLOWABLE. THE PROBABLE CAUSE OF THE FAILURE IS EXCESSIVE PR ESSURE IN INTERNAL COMPENSATING BELLOW AND/OR SILICONE OIL.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-TEST SPECIMEN REJECTED AND RETURNED TO VENDOR. THE BALANCE OF THE 16 UNITS IN LOT 18 WERE SUBJECTED TO HIGH TEMPERATURE TEST FOR ACCEPTANCE.						000700
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	SLV-89-24-3040-F	FAR 87-01607-948	890916	FACTORY	YES BENDIX NO 3131193-EAA		000843
FAILURE MODE-DRIFT. OSCILLATOR FREQUENCY REPORTEDLY DRIFTED DURING CHECKOUT.							
CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. THE TELEMETRY COULD NOT BE OBTAINED FOR ADDITIONAL FAILURE ANALYSIS. NO CORRECTIVE ACTION TAKEN. HOWEVER, PERSONNEL WERE ALERTED TO MAINTAIN SURVEILLANCE OVER THIS TELEMETRY DURING FINAL CHECKOUT OF THE MISSILE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	SLV-89-24-3041-F	FAR 87-01636-15	890916	FACTORY	YES FIFTH DIMENSION NO N NRXD-466		000883
FAILURE MODE-CONTAMINATION. UNIT REPORTEDLY INDICATED AN INTERMITTENT DISAPPEARANCE OF THE INFORMATION AND NEGATIVE GATE SEGMENTS OF THE COMMUTATED WAVE TRAIN DURING TELEMETRY VIBRATION. FAILURE POSSIBLY DUE TO THE PRESENCE OF CONTAMINATION.							
CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. MEMO, 895-0-85-26 IS A REPLY TO THE CORRECTIVE ACTION REQUEST (RAR SLV-89-24-8363). ALSO THE REPLY STATED THAT BECAUSE OF THE EXHAUSTIVE TESTING AND THE LOW RATE OF FAILURES ATTRIBUTED TO CONTAMINATION, THE RECOMMENDATION FOR SURVEY IS CONSIDERED UNJUSTIFIED AND CONSIDERS SPECIFIC ACTION ONLY ON EACH FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	A-89-24-5037-F	FAR 89-01174-133	890916	FACTORY	YES BENDIX NO 1008141-176		000760
FAILURE MODE-ERRATIC OPERATION. ERRATIC OPERATION OF THE SUBCARRIER OSCILLATOR WAS DETECTED DURING A FACTORY CHECKOUT OF THE TELEMETRY SYSTEM. A REPLACEMENT OSCILLATOR FUNCTIONED SATISFACTORILY AND SUBSEQUENT INVESTIGATIONS OF THE SUSPECT OSCILLATOR REVEALED NO DEFECTS.							
CORRECTIVE ACTION-FACTORY PERSONNEL WERE ADVISED TO SUBMIT SUSPECTED SUBASSEMBLIES FOR FUNCTIONAL TEST IMMEDIATELY AND, IF NOT FOUND DEFECTIVE, TO BE RE-INSTALLED TO DETERMINE IF THE FAILURE IS STILL PRESENT, AS PER STANDARD DEPARTAMENTAL PROCEDURES.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTN	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	A-90-84-5038-P FAR-84-5038-P FAR-84-5038-P	PAR 27-01838-15	880907	WTR	YES NO	FIFTH DIMENSION NO N 8003NO-530
FAILURE MODE-OUT OF SPECIFICATION. DURING DECOMMUTATION OF A TELEMETRY CALIBRATION TAPE THE COMMUTATOR WAS DETERMINED TO BE OPERATING AT VARYING SPEEDS BELOW NORMAL SPECIFIED. DUE TO A MISPLACED BRUSH-INSULATOR STRIP WHICH INTERFERED WITH NORMAL ROTATION OF THE ROTOR SECTION OF THE MOTOR.						
CORRECTIVE ACTION-VENDOR WAS INSTRUCTED TO IMPROVE RECEIVING INSPECTION PROGRAM COVERING DC MOTORS DELIVERED BY GLO BE INDUSTRIES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS ERS	FAR-84V-AB-24-5033 FAR-84V-AB-24-5033	PAR 27-01838-15	2900	FACTORY	YES NO	MIANCO NO 54103-13
FAILURE MODE-STRUCTURAL. DURING MISSILE CHECKOUT, THE TRANSDUCER OUTPUT EXCEEDED EXPECTED VALUES. EXAMINATION AND TESTING SHOWED THAT ELECTRICALLY IT WAS SATISFACTORY, BUT THERE PROBABLE WAS DISTORTION IN THE ARMATURE AND BOURDON TUBE ASSEMBLY. THIS IS USUALLY CAUSED BY OVER PRESSURIZATION. THE EXACT CAUSE WAS NOT FOUND. MEAS USED.						
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IT WAS RECOMMENDED THAT CHECKOUT TECHNIQUES AND PROCEDURES BE REVIEWED TO ELIMINATE POSSIBILITIES OF OVERPRESSURIZATION. PERSONNEL NOTIFIED USE OF HANDLING TAGS INITIATED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS ERS	FAR-84V-AB-24-5033 FAR-84V-AB-24-5033	PAR 89-01004-23	7116	FACTORY	YES NO	SOURNS NO 202203001
FAILURE MODE-ELECTRICAL OPEN. DURING FINAL CHECKOUT, THE TRANSDUCER INDICATED OUT OF BAND VALUES. EXAMINATION REVEALED AN OPEN TRANSISTOR, OPEN RESISTOR, AND SHORTED DIODE, PROBABLY CAUSED BY MISAPPLICATION OF VOLTAGE. MEAS H224P.						
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. FAR 84V-AB-24-5034 WAS ISSUED TO EMPHASIZE TRAINING IN PROCEDURES. A T TRANSDUCER WORKING COMMITTEE IS ALSO WORKING OUT A MASS TRANSDUCER TRAINING PROGRAM PROPOSAL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR POTENTIOMETER ERS	84V-AB-24-5038-P FAR-84-5038-P	PAR 27-01807-119	7116	FACTORY	YES NO	BENDIX NO
FAILURE MODE-ELECTRICAL OPEN. DURING FACTORY FINAL CHECKOUT THE TELEMETRY PREFLIGHT CALIBRATION PULSES WERE OUT OF BAND AND LIMITS DUE TO FAULTY SOLDER CONNECTIONS AT FREQUENCY POTENTIOMETER R-18.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-VENDOR REQUESTED TO IMPROVE QUALITY CONTROL OVER SOLDERING TECHNIQUE.						001000
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	A-49-24-3026-F LIMITER-CIRCUIT BOARD	FAR 87-18707-1	130F 090983	FACTORY	YES	CONVAIR NO 87	001000
FAILURE (MODE-OPEN (ELECTRICAL)). DURING FINAL CHECKOUT OF VEHICLE IN FACTORY, TELEMETRY NO. 2 WAS FOUND TO HAVE AN OPEN CONNECTION BETWEEN J9 PIN-P AND RESISTOR R-3 ON LIMITER CIRCUIT BOARD DUE TO FAULTY SOLDERING TECHNIQUE.							
CORRECTIVE ACTION-SOLDERING TECHNIQUES FOR EYELETER PRINTED CIRCUIT BOARDS WERE IMPROVED AND WEEKLY AUDITS OF ALL ELECTRONICS MANUFACTURING AREAS WERE INSTITUTED. ALL NEW DESIGNS INCORPORATED PLATED THROUGH TYPE BOARDS INSTEAD OF EYELET TYPE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	60A/2RF64-038/L4-403-00-7101 COMMUTATOR.	FLIGHT	7101 810814	2-4	YES NO		000000
FAILURE MODE-OUT OF TOLERANCE. COMMUTATION SPEED OF CHANNEL 11: RF1, WAS OPERATING SLOW BY 8.4 PCT. CAUSE UNKNOWN. COMMUTATOR MOTORS HAVE A HISTORY OF GAINING SPEED WITH OPERATING TIME.							
SYSTEM EFFECT-NONE. THE OUT-OF-TOLERANCE SPEED DID NOT RESULT IN ANY DATA RETRIEVAL DIFFICULTIES.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NONE. PROPOSAL TO PERFORM 50 HOUR RUN TIME TEST FOR COMMUTATOR MOTORS DISSAPPROVED BY SDC ENGINEERING CHANGE BOARD.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	GOCB2-65-019/P59-LO-02-DAC6 TLN CANISTER	COUNTDOWN	1310 850511	ETR	YES	TEXAS INSTRUMENTS NO NTS	000044
FAILURE MODE-TOLERANCE. INTERMODULATION FROM RF2 CHANNELS C AND E INTO RF2 CHANNELS 10 AND 13.							
SYSTEM EFFECT-ERRATIC OPERATION. RF2 CHANNEL 13 SHOWED 6 PERCENT NOISE, CHANNEL 10 SHOWED 3 PERCENT NOISE.							
VEHICLE EFFECT-NONE. NO HOLD INITIATED.							
CORRECTIVE ACTION-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	60C-BN283-037, 68-LO-02-ACB COUNTDOWN 88-12387	1910 650811	268 -240	YES NO		090646
<p>FAILURE MODE-OUT OF TOLERANCE. UPON SWITCHING POWER TO INTERNAL, FILAMENT VOLTAGE TO RF-1 CHANNEL 2 INCREASED AND 9 SHIFTED 800 FREQUENCY.</p> <p>SYSTEM EFFECT-OPERATION TOO HIGH. NEGATIVE RATE LEVEL EXCEEDED TOLERANCE.</p> <p>VEHICLE EFFECT-NONE. NO HOLD INITIATED.</p> <p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	60C-BN2-83-033/P68-LO-38-0ACB COUNTDOWN 88-12387-861	1910 650811	268 NO	YES NO		090613
<p>FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR OVERSPEEDING. RF1 CHANNEL 12 AND 13 COMMUTATION RATE WAS 8.35 RPS EXCEEDS MG SPEC RATE 5.25 RPS.</p> <p>SYSTEM EFFECT-NONE.</p> <p>VEHICLE EFFECT-NONE. NO HOLD INITIATED.</p> <p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-8LV-A8-24-3021 FAR 69-01006-23	650811 FACTORY	YES BURNS NO	203203001		090334
<p>FAILURE MODE-DRIFT. THE TRANSDUCER WAS REJECTED BECAUSE OUTPUT WAS OUT OF EXPECTED VALUE. THE FAILURE WAS SIMILAR TO THOSE REPORTED IN FAR-8LV-89-24-4936 AND WAS PROBABLY DUE TO LONG TERM DRIFT.</p> <p>CORRECTIVE ACTION-PART REDESIGNED TO -123 BY SUBSTITUTING FILM TYPE RESISTORS FOR CARBON COMPOSITION RESISTORS.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	60C-BN283-037, 68-LO-02-ACB FLIGHT 88-12387-861	1910 650811	368/ETR YES	BENDIX NO		
<p>FAILURE MODE-OUT OF SPECIFICATION. COMMUTATION RATE OF CHANNELS 12 AND 13 TELEMETRY PACKAGE RF1 WAS 0.10 REV PER SEC COMP OUT OF SPEC HIGH.</p> <p>SYSTEM EFFECT-OPERATION TOO HIGH. THIS SPECIFICATION OF 9.0 PLUS 9 PERCENT EXCEEDED BY 0.10 RPS. DATA PROCESSING CAP ABILITY CAPABLE OF RECOVERING DATA IN EXCESS OF THIS SPECIFICATION. NO DATA LOST.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SIZE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REVISED COMMUTATOR ACCEPTANCE PROCEDURES. INCORPORATED COMMUTATOR RUN-IN FOR COMMUTATORS USED ON CENTAUR BOOSTER.							091033
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC WIRING ERR	60C/BK66-086/A2-801-00-147 FLIGHT	1477 650805	A-2 0	YES NO	YES NO	YES NO	091148
FAILURE MODE-ELECTRICAL OPEN. SIGNAL GROUND TO ARMA ANALOG SIGNAL CONDITIONER (ASC) HAD BEEN INADVERTANTLY OMITTED IN THE B1 PWD HARNESS. RESULTING IN ARMA ANALOG MEASUREMENT LOSS AFTER LIFTOFF. SYSTEM EFFECT-OPERATION DOES NOT START. TWENTY-TWO ARMA MEASUREMENTS FROM THE ANALOG SIGNAL CONDITIONER (ASC) WERE LOST THROUGHOUT THE FLIGHT DUE TO A BIAS SHIFT. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-CIC 80792 APPROVED FOR CLASS II CHANGE TO ADD THE MISSING WIRE, EFFECTIVE ON 87-10235-2 (1487) AND ON.							091188
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-RESISTOR ERR	8LV-A8-24-5022-F 60-11100-887-R-6	FAR 60-11100-887-R-6	35082 FACTORY	YES NO	YES NO	YES NO	091439
FAILURE MODE-OUT OF SPECIFICATION. THERMAL RESISTOR R-6 OF THE TELEMETRY PACKAGE WAS FOUND TO MEASURE 50 OHMS AT ROOM TEMPERATURE INSTEAD OF NOMINAL 15 OHMS AFTER TELEMETRY FAILURE DURING FACTORY FINAL CHECKOUT. FAILURE WAS CAUSED BY FAULTY MANUFACTURING TECHNIQUE IN JOINING THE RESISTANCE ELEMENT TO THE CONNECTING LEADS. CORRECTIVE ACTION-MANUFACTURER WAS REQUESTED TO TAKE ACTION TO INSURE POSITIVE CONTACT BETWEEN ELEMENT AND LEADS.							091439
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERR	W5CAPE 0770/P68-C6-04-PACE COMPOSITE-J FACT	1310 830731	368 NO	YES NO	YES NO	YES NO	091439
FAILURE MODE-SHORT (ELECT). A SHORT ON RFI CHANNEL E COMMUTATOR CAUSED THE NEGATIVE GATE SEGMENTS TO BE AT 100 PERCENT. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COMPOSITE DELAYED. CORRECTIVE ACTION-TLM PACKAGE NO.1 AND ACCESSORY PACKAGE (MATCHED SET) REPLACED.							091439

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-BLV-99-84-5089 FAR-BLV-99-84-5089 ST-01998-89	FAR ST-01998-89	380789	FACTORY	YES	WJAMCRO NO 84103-21
<p>FAILURE MODE-STRUCTURAL. THE TRANSDUCER WAS REJECTED DURING CALIBRATION BECAUSE OF EXCESSIVE OUTPUT ERROR. EXAMINATION REVEALED CHIPPED AND CRACKED FERRITE PAD WHICH PRODUCED A CHANGE IN THE RELUCTANCE PATH. THE DAMAGE WAS PROBABLY CAUSED BY MISHANDLING.</p> <p>CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. NO CORRECTIVE ACTION WAS TAKEN BECAUSE THE SOURCE OF MISHANDLING WAS NOT IDENTIFIED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER TRANSDUCER ERS	FAR-BLV-99-84-5085-F FAR-BLV-99-84-5085-F 7-01413-9	FAR 7-01413-9	630720	FACTORY	YES	BORG-WARNER NO 9747-B
<p>FAILURE MODE-ELECTRICAL OPEN. DURING CALIBRATION THE TRANSDUCER WAS REJECTED FOR NO OUTPUT. THE TRANSDUCER IN THE AMPLIFIER SECTION WAS FOUND TO HAVE A BROKEN WIRE. EXCESSIVE TENSION MAY HAVE CAUSED THE BREAK.</p> <p>CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED THE VENDOR WAS INFORMED OF THE PROBLEM AND PROBABLE CAUSE. IN COMPLIANCE. THE VENDOR HAS IMPROVED ASSEMBLY AND INSPECTION TECHNIQUES.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	BLV-99-24-5020-F BLV-99-24-5020-F 89-01003-39	FAR 89-01003-39	650727	FACTORY	YES	SERVONIC NO 2091-1139
<p>FAILURE MODE-CONTAMINATION. TRANSDUCER EXHIBITED ERRATIC OUTPUT. FAILURE WAS ATTRIBUTED TO NON-METALLIC PARTICLES FOUND IN THE SILICONE OIL. THE PARTICLES EVIDENTLY GOT BETWEEN THE WIPER AND THE RESISTANCE MANDREL AND CAUSED THE ERATIC OUTPUT.</p> <p>CORRECTIVE ACTION-RECOMMENDED THE VENDOR REVIEW THAT ASSEMBLY, CLEANING, AND INSPECTION PROCEDURES TO PRECLUDE THE POSSIBILITY OF FOREIGN PARTICLES AND FIBERS BEING SEALED IN THE TRANSDUCER CASE. VENDOR INFORMED PRODUCTION AND Q.C. PERSONNEL.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, POTENT ERS	BLV-99-24-5088-F BLV-99-24-5088-F 89-01003-39	FAR 89-01003-39	5001 650784	FACTORY	YES	BORG NO 200737307
<p>FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER FOR MEASUREMENT H33P INDICATED NO OUTPUT DURING END-TO-END TESTING. PRELIMINARY EXAMINATION REVEALED PIN A WAS ELECTRICALLY OPEN TO PINS B AND C BECAUSE THE POTENTIOMETER RESISTANCE WINDING WAS FOUND BURNED OUT BENEATH THE WIPER AT THE UNPRESSURIZED POSITION. THE BURNED AREA APPEARED TO HAVE BEEN SUBJECT</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
ED TO EXCESSIVE CURRENT, HAVING LITTLE ROUND BALLS OF MELTED WIRE AT THE BROKEN ENDS OF THE WIRE.						
CORRECTIVE ACTION-TET 3995 EXAMINED AND REVALIDATED. PERSONNEL ADVISED OF FAILURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	FTAS40/PS-4CO-01-225	COMPOSITE-J FACT	225D 050707	13	YES NO	
FAILURE MODE-OUT OF TOLERANCE. TELEMETRY RF 1 CHANNEL IS COMMUTATOR SPEED WAS FAST AT 4 RPS. MAXIMUM ALLOWABLE IS 2 -025RPS.						
SYSTEM EFFECT-OPERATION TOO HIGH. TELEMETRY RF 1 CHANNEL IS COMMUTATOR RUNNING TOO FAST.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-REPLACED TELEMETRY PACKAGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	CT-08-24-3277	FAR 27-01387-005	030705	ETR	YES FIFTH DIMENSIO NO N	R25C-123
FAILURE MODE-CONTAMINATION. COMMUTATION SPEED WAS 1.60 RPS WHEN 2.85 WAS EXPECTED. THE FAILURE WAS ATTRIBUTED TO 50 LDER BALL CONTAMINATION WITHIN THE SEARTRAIN ASSEMBLY.						
CORRECTIVE ACTION-REQUESTED VENDOR TO REVIEW ASSEMBLY, INSPECTION, AND TESTING REQUIREMENTS AND TAKE REMEDIAL ACTION N TO PREVENT SHIPMENT OF CONTAMINATED UNITS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	CT-08-24-3269	FAR 27-01386-15	151D 050708	ETR	YES FIFTH DIMENSIO NO N	MRD466
FAILURE MODE-CONTAMINATION. COMMUTATOR MASTER PULSE SEGMENT AND NEGATIVE PULSE SEGMENT WERE FOUND SHORTED TOGETHER. FAILURE WAS CAUSED BY METALLIC CONTAMINANTS IN AND ADJACENT TO THE 3 AND 4 POLE HOUSINGS CAUSING A SHORT CIRCUIT BE TWEEN A NEGATIVE GATE SEGMENT AND THE ADJACENT MASTER PULSE SEGMENT ON POLE 4.						
CORRECTIVE ACTION-REQUESTED VENDOR REVIEW ASSEMBLY, INSPECTION AND TESTING REQUIREMENTS AND TAKE REMEDIAL ACTION TO PREVENT SHIPMENT OF CONTAMINATED UNITS.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							091964
	<p>CORRECTIVE ACTION-ACTION WAS TAKEN TO ELIMINATE SPIKING FAILURES ON THE -P THROUGH -AS SERIES TRANSDUCERS BY CHANGING THE MOUNTING MATERIAL HOLDING THE POTENTIOMETER WIRE IN PLACE. THIS WAS ACCOMPLISHED AFTER THE ASSEMBLY DATE OF JUNE 1964 OF THIS TRANSDUCER.</p>						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER, INSTRUMENTATION ERS	SLV-90-24-3010-F FAR 7-01033-2	7109 650610	WTR	YES NO	ROSEMOUNT 1496	092069
	<p>FAILURE MODE-ELECTRICAL SHORT. TRANSDUCER FOR MEASUREMENT F247T INDICATED AN INTERMITTENT OUTPUT. AN INTERMITTENT HIGH-RESISTANCE SHORT CIRCUIT DEVELOPED IN THE UPPERMOST WINDINGS OF THE END ELEMENT WHEN ONE OF THE CERAMIC COATED POSTS WAS DAMAGED. THE DAMAGED AREA WAS ALIGNED WITH A PERFORATION IN THE PROTECTIVE SHEATH AND APPEARED TO HAVE BEEN INFLECTED BY AN EXTERNAL SOURCE. THE SHORT CIRCUIT PATH MAY HAVE BEEN DEVELOPED BY MOISTURE INTRUSION IN THE DAMAGED AREA.</p>						
	<p>CORRECTIVE ACTION-INFORMED WITH PERSONNEL OF THE PROBABLE CAUSE OF THE FAILURE.</p>						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	FAR-8LV-90-24-3015 FAR 89-01004-23	7103 650617	2-4	NO NO	BOURNE 2023203001	092244
	<p>FAILURE MODE-FAIL DURING OPERATION. DURING A TEST ON THE VEHICLE, THE TRANSDUCER SHOWED A LOSS IN OUTPUT. FAILURE ANALYSIS TESTS COULD NOT DUPLICATE THE REPORTED FAILURE.</p>						
	<p>CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. THIS UNIT REDESIGNED TO 89-01004-123.</p>						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER POWER SUPPLY, TRANSFORMER T-1 ERS	LV-99-24-3010-F FAR 89-01133-1	650617	FACTORY	YES NO	ACI 1136	091667
	<p>FAILURE MODE-SHORT (ELECTRICAL). DURING MANUFACTURING CHECK OF THE TELEMETRY POWER SUPPLY THE PRIMARY WINDINGS OF TRANSFORMER T-1 WERE FOUND TO BE SHORTED BY SOLDER BALLS AROUND THE INSIDE OF THE TRANSFORMER TERMINALS, CAUSING OUTPUT VOLTAGE TO DROP TO 8 PERCENT OF NOMINAL VALUE.</p>						
	<p>CORRECTIVE ACTION-VENDOR INSTITUTED IMPROVED SOLDERING TECHNIQUES ON SUBSEQUENT PRODUCTION RUNS.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FTAB888/P6-CO-02-04CS	COMPOSITE-J FACT	1910 850616	ETR-308	YES NO		897859
FAILURE MODE-OUT OF TOLERANCE. ALL ATLAS LINKS SHOWED 60 CPS RIPPLE. THE MOST SERIOUS CASE WAS RF1 CH13 WHICH SHOWED DATA VARIATIONS OF 8 PCT.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FTAB888/P6-CO-02-04CS	COMPOSITE-J FACT	1910 850616	ETR-308	YES NO		897454
FAILURE MODE-OUT OF SPECIFICATION TOLERANCE. ALL ATLAS RF1 SCO SHIFTED FREQUENCY DOWN AT TELEMETRY TO INTERNAL. WORST CASES WERE RF1-13 SHIFTING 38 PCT AND RF1-E 30 PCT. AFTER STABILIZING RF1-A WAS APPROX 10 PCT FBW ABOVE HIGH FREQUENCY BAND EDGE. OVERALL QUALITY OF RF1 WAS POOR.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-COMPOSITE DELAY.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	3LY-89-24-5003-F	FAR 27-01836-21	650614	FACTORY	YES NO	FIFTH DIMENSION NO N	891402
FAILURE MODE-OUT OF TOLERANCE. DURING FACTORY TEST THE DEFECTIVE COMMUTATOR WAS FOUND TO BE OPERATING WITH SPEED OF ALL POLES AT 1.5 RPS, INSTEAD OF 5 RPS AND 0.185 RPS AS SPECIFIED. THE FAILURE WAS CAUSED BY INTERCHANGE OF NAME PLATES WITH ANOTHER COMMUTATOR DURING MANUFACTURE.							
CORRECTIVE ACTION-MANUFACTURER WAS REQUESTED TO IMPROVE MANUFACTURING PROCEDURES TO PREVENT RECURRENCE. MANUFACTURER REVISED FINAL TEST PROCEDURE BY REQUIRING TEST PERSONNEL TO CHECK IDENTIFICATION AGAINST PERFORMANCE, REQUIREMENTS AND INSPECTION TAGS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	69C4280	UTP-ET 69-01004-33	650610	60/C	YES NO	WIANCKO PB-4282-33	
FAILURE MODE - OUT OF TOLERANCE. THE UNIT FAILED RF SUSCEPTIBILITY BETWEEN 7.8 AND 9.7 MC WHERE A DC SHIFT OF 90 MHZ							

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							898170
<p>ALL VOLTS WAS OBSERVED AND BETWEEN 87 AND 78 MC WHERE A DC SHIFT OF 100 MILLIVOLTS WAS OBSERVED. 87N 408-0318. THE D1 SCREWPANCY RESULTED FROM TESTS WHICH INTENTIONALLY EXCEEDED THE DESIGN REQUIREMENTS.</p>							
<p>CORRECTIVE ACTION - NONE.</p>							
<p>INSTRUMENTATION-A/B SLV-89-24-4988-F FAR 7201 FACTORY YES YES TELEMETRY SET AND TRANSDUC CALIBRATOR 87-12281-801 830803 NO</p>							
<p>FAILURE MODE-FAIL TO CEASE OPERATION AT PRESCRIBED TIME. THE CALIBRATOR WAS REJECTED BECAUSE IT OPERATED CONTINUOUSLY. SPECIFICATIONS REQUIRE THAT THE CALIBRATOR OPERATE 23 PLUS OR MINUS 18 SECONDS.</p>							
<p>CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.</p>							
<p>INSTRUMENTATION-A/B SLV-89-24-4981-F FAR 7201 FACTORY YES FIFTH DIMENSTO TELEMETRY SET AND TRANSDUC COMMUTATOR 87-01838-13 830801 NO M ERS MMD-468</p>							
<p>FAILURE MODE-CONTAMINATION. THE COMMUTATOR WAS REJECTED WHEN CHANNEL-A ELEMENT 39 INDICATED 0 PERCENT INFORMATION B AND WIDTH WHEN AS 25 TO 75 PERCENT 100 WAS EXPECTED. FAILURE WAS CAUSED BY A STAINLESS STEEL BLIVER ON THE J-1 CONNECTOR BACKSHELL SHORTING PIN-7 UP CONNECTOR J-1 TO THE COMMUTATOR CASE. THE METALLIC BLIVER APPARENTLY DROPPED INTO THE CONNECTOR BACKSHELL DURING COMMUTATOR ASSEMBLY.</p>							
<p>CORRECTIVE ACTION-FIFTH DIMENSION WAS COLECTED THE USE OF MARKING TAPE AND PAPER AS PROTECTIVE DEVICES. POLYETHYLENE BAGS WILL BE USED. MANUFACTURING AND INSPECTION PERSONNEL HAVE BEEN INSTRUCTED TO PROVIDE ADDITIONAL EMPHASIS IN MATERIAL HANDLING AND CLEANLINESS MEASURES.</p>							
<p>INSTRUMENTATION-A/B FAR-SLV-89-24-5009 FAR 149F FACTORY YES VIANCRO TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER 87-01838-81 830328 NO 54103-13 ERS</p>							
<p>FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER WAS REMOVED FROM 149F BECAUSE OF ERRATIC OUTPUT, CAUSED BY LOOSENING OF E-CORES FROM THEIR MOUNTING BLOCKS. THIS WAS CAUSED BY IMPROPER PREPARATION OF SURFACES BEFORE THE ADHESIVE WAS APPLIED. FOR SIMILAR CASES, SEE FAR-SLV-89-24-5009.</p>							
<p>CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IN RESPONSE, THE VENDOR IMPROVED HIS SURFACE PREPARATION BY ENGINEERING CHANGE ORDER 10387 DATED 880809.</p>							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	LV-99-24-4994-F FAR 7-01731-8	124D 650321	YES BOURNS NO 71754-0-0-10-7			092037
FAILURE MODE-STRUCTURAL. THE UNIT WAS REJECTED WHEN IT SHOWED A STATIC ERROR OF PLUS 3.36 PERCENT. DRAWING 7-01731-8 SPECIFIES A MAXIMUM STATIC ERROR ALLOWABLE OF PLUS 0.75 PERCENT. THE FAILURE IS ATTRIBUTED TO OVERPRESSURIZATION. IT COULD NOT BE DETERMINED WHERE THE OVERPRESSURIZATION OCCURRED NEARFIELD.						
CORRECTIVE ACTION-ALL INVOLVED CO/C PERSONNEL WERE INFORMED OF THE DISCREPANCY.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-99-24-4980-F FAR 69-11118	7118 650321	YES SPECTROL NO 60-2-1-104			092072
FAILURE MODE-OPEN (ELECT). THE POTENTIOMETER OUTPUT VOLTAGE WAS ERRATIC AND WOULD NOT ADJUST TO 5,000 PLUS OR MINUS 0.0005 VOLTS DC. THE FAILURE WAS CAUSED BY A PHYSICAL BREAK IN THE POTENTIOMETER RESISTANCE ELEMENT. THE EXACT BREAK COULD NOT BE IDENTIFIED AS OTHER OPEN CIRCUITS WERE CAUSED BY HANDLING. GDC POT P/N 86-75283-011.						
CORRECTIVE ACTION-THE FAULTY SPECTROL FIXTURE WHICH CAUSED THE RESISTANCE WIRES TO BREAK WAS CORRECTED. THIS POTENTIOMETER WAS DECLARED INACTIVE FOR NEW DESIGN AFTER 15 FEBRUARY 1963. IT WAS REMOVED FROM THE PREFERRED PARTS LIST IN MARCH 1964.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTALLATION ERS	SLV-90-24-5012-F FAR 69-01003-33	650320 WTR	YES BOURNS NO 2007371707			092066
FAILURE MODE-CONTAMINATION. TRANSDUCER EXHIBITED ZERO OUTPUT VOLTAGE WHEN PRESSURIZED TO 3000 PSIG. FAILURE WAS NOT CONFIRMED. CONTAMINANT PARTICLES MAY HAVE CAUSED THE FAILURE BY GETTING BETWEEN THE WIPER ARM AND THE RESISTANCE MATERIAL.						
CORRECTIVE ACTION-INFORMED THE VENDOR OF THE CONTAMINANTS FOUND IN THE OIL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	68C4282 U7P-PRT 69-01004-33	650320 CO/C	YES MIANCKO NO P2-4282-33			
FAILURE MODE - OUT OF TOLERANCE. DURING THE P.C. AFTER 2-AXIS TEMPERATURE VIBRATION, THE OUTPUT HAD A NEGATIVE SHIFT OF 9.3 TO 11.7 PERCENT THROUGHOUT THE RANGE OF THE SPECIMEN. 8/N 4040520. THIS FAILURE RESULTED FROM TESTS WHICH INTENTIONALLY EXCEEDED DESIGN REQUIREMENTS. CONNECTOR PIN-C (OUTPUT GROUND) WAS FOUND TO HAVE A 700 OHM RESISTANCE TO THE TRANSDUCER CASE. ALSO, ONE OF THE WIRES IN THE SENSOR WERE BROKEN IN 2 PLACES.						

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	CORRECTIVE ACTION - NONE.							890171
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS							892641
	LY-48-24-4988-F	PAR 7-01731-8	1840 650519	FACTORY	YES	BOURNS NO	71724-0-10-752	
	FAILURE MODE-STRUCTURAL. THE PRESSURE TRANSDUCER HAD AN OUTPUT VOLTAGE STATIC ERROR OF PLUS 9.0 PERCENT. A PLUS OR MINUS 0.75 PERCENT MAXIMUM STATIC ERROR IS ALLOWED. THE FAILURE IS ATTRIBUTED TO OVERPRESSURIZATION. IT COULD NOT BE DETERMINED WHERE THE OVERPRESSURIZATION OCCURRED. REAS P3A4P.							
	CORRECTIVE ACTION-ALL INVOLVED GOC PERSONNEL WERE INFORMED OF THE DISCREPANCY.							897396
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FT48531/P2-4CO-03-264	COMPOSITE-B FACT 2640 650514	ETR-12	YES	NO		
	FAILURE MODE-OUT OF TOLERANCE. SPURIOUS FREQUENCIES WERE NOTED ON EITHER SIDE OF THE PRIMARY CARRIER FREQUENCY OF 220.9MC DURING THE TEST.							
	SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
	VEHICLE EFFECT-NONE.							
	CORRECTIVE ACTION-REPLACE TELEMETRY CANISTER.							892687
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AUDIOFREQUENCY DETECTOR-DJ00E ERS	BLV-92-24-4988-F	PAR 650513	FACTORY	YES	FAIRCHILD NO		
	FAILURE MODE-OPEN (ELECT). THE AUDIOFREQUENCY DETECTOR HAD AN OUTPUT OF MINUS 0.916 VOLT DC FOR A 120 DEGREE PHASE 2 VOLTS RMS INPUT WHEN 0.0 VOLT DC WAS EXPECTED. THE FAILURE WAS CAUSED BY A BROKEN WIRE LEAD IN THE CR-1 DIODE BRIDGE ASSEMBLY. THE BRIDGE ASSEMBLY IS MANUFACTURED BY FAIRCHILD SEMICONDUCTOR CORPORATION AS A P4P-12. GDC P/N 87-1901 9-018. EXCESSIVE FLATTENING OR NICKING OF THE WIRE IN THE BREAK AREA WEAKENED THE WIRE ENOUGH TO CAUSE FAILURE FROM NORMAL VIBRATION AND THERMO-FLEXING OF THE WIRE. IT IS ASSUMED THAT THE FLATTENING TOOK PLACE WHEN THE LEAD WAS WELDED.							
	CORRECTIVE ACTION-A MORE FREQUENT INSPECTION OF THE WELD HAS BEEN INSTITUTED BY THE VENDOR.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AUDIOFREQUENCY DETECTOR-RESISTOR ERS	SLV-99-24-4991-F AUDIOFREQUENCY DETECTOR-RESISTOR	FAR 69-11118-9	5801 090819	FACTORY YES	YES NO	6DC	092675
FAILURE MODE-SHORT (ELECT). THE AUDIOFREQUENCY DETECTOR BURNED OUT AND SPLIT WHEN POWER WAS APPLIED. FAILURE WAS CA USED BY THE RESISTOR R-8 LEAD SHORTING TO THE CASE OF TRANSISTOR 8-2, 2H930.							
CORRECTIVE ACTION-ECN 401803 IS BEING PROCESSED TO ADD A NOTE TO DRAWING 69-11118 WHICH REQUIRES RESISTOR R-8 LEADS BE INSULATED. RELEASE OF THIS CHANGE WILL BE BY 12 JULY 1966.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-99-24-4990-F DETECTOR-POTENTIOMETER	FAR 69-11118-9	090311	FACTORY YES	YES NO	SPECTROL	092686
FAILURE MODE-OPEN (ELECT). THE AUDIOFREQUENCY DETECTOR FAILED DURING PRODUCTION TESTING. ADJUSTMENT OF R8 SHOULD PR OVIDE A PLUS 3.000 PLUS OR MINUS 0.003 VOLT DC OUTPUT. ACTUAL ADJUSTMENT WAS ERRATIC AND SKIPPED FROM PLUS 2.530 TO PLUS 5.439 VOLTS DC. THE FAILURE WAS CAUSED BY A BROKEN WIRE LEAD IN THE INTERNAL WIRE CIRCUIT OF THE R8 POTENTIOME TER, P/N 46-75283-011, MANUFACTURED BY SPECTROL ELECTRONICS CORPORATION. THE SHARP BEND NEAR THE BROKEN WIRE LEAD EN D WEAKENED THE WIRE ENOUGH TO CAUSE FAILURE FROM NORMAL FLEXURE OF THE WIRE. THIS SHARP BEND WAS PRODUCED DURING FAR RELOCATION OF THE POTENTIOMETER, PROBABLY DURING SOLDERING.							
CORRECTIVE ACTION-THE VENDOR INCREASED A RELATIVE NUMBER OF UNITS INSPECTED FOR 30 DAYS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-99-24-4979-F DETECTOR-POTENTIOMETER	FAR 69-11118-9	090311	FACTORY YES	YES NO	SPECTROL	092687
FAILURE MODE-OPEN (ELECT). THE OUTPUT VOLTAGE OF THE AUDIOFREQUENCY DETECTOR JUMPED FROM PLUS 2.531 TO 6.792 VOLTS DC WHEN THE SPECTROL MODEL-40, R-8 POTENTIOMETER WAS ADJUSTED. A SETTING OF PLUS 5.000 PLUS OR MINUS 0.003 VOLTS DC IS SPECIFIED. FAILURE OF THE DETECTOR WAS CAUSED BY A BROKEN WIRE IN THE MANDREL OF THE POTENTIOMETER.							
CORRECTIVE ACTION-THE FOLLOWING ACTION WAS REQUESTED. 1. DISCONTINUE USE OF SPECTROL MODEL-40 POTENTIOMETERS. 2. RE MOVE ALL SPECTROL MODEL-40 POTENTIOMETERS FROM STOCK.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-99-24-5006-F PRESSURE TRANSDUCER	FAR J7-01982-49	090310	FACTORY YES	YES NO	MIANCO 84103-9	
FAILURE MODE-OUT OF TOLERANCE. TWO 27-018-2-28 TRANSDUCERS WERE REJECTED FOR BEING OUT OF STATIC E RROR BAND, CAUSED BY AGING CHANGES IN CARBON RESISTORS WHICH WERE IMPROPERLY INSTALLED.							

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CORRECTIVE ACTION-VENDOR REPAIRING ALL FAILURES OF THIS TYPE AT VENDOR EXPENSE. VENDOR CORRECTIVE ACTION INCLUDED DISCIPLINARY LAYOFFS AND TRANSFERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	BLV-99-24-4998-F BANDPASS FILTER-INDUCTOR	FAR 87-01295-5	7119 680906	FACTORY	YES NO	YES ENTR ACI 3030-5
FAILURE MODE-OUT OF SPECIFICATION. THE BANDPASS FILTER WAS REJECTED WHEN ITS MAXIMUM OUTPUT WAS 0.064 VOLT AC. WHEN PAS 0.010 TO 0.115 VOLT AC WAS REQUIRED. THE FAILURE WAS CAUSED BY AN UNSTABLE INDUCTOR IN THE FILTER. AN UNSOLDERED CONNECTION WAS FOUND IN THE FILTER, BUT IT HAD NOT AFFECTED THE OPERATION OF THE FILTER. N/A 87-18287 FILTER ASSEMBLY.						
CORRECTIVE ACTION-APPLIED COMPONENTS INDICATED THAT IF FUTURE ORDERS ARE ACCEPTED, THEIR MANUFACTURING PROCESS WOULD BE CHANGED AND MORE DETAILED CONTROLS WOULD BE IMPLEMENTED TO IMPROVE THE FILTER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	CI-99-24-3250 COMMUTATOR	FAR 87-01636-7	650506	FACTORY	YES NO	YES FIFTH DIMENSIO M MXXD-162
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. COMMUTATOR SPEED HAD 9.31 RPS WHEREAS THE MAXIMUM ALLOWED IS 5.25 RPS. THE INCREASE IN COMMUTATION RATE WAS DUE TO THE REDUCTION IN TORQUE REQUIREMENTS.						
CORRECTIVE ACTION-RECOMMENDED THE VENDOR BURN IN THE COMMUTATORS FOR 50 HOURS BEFORE CALIBRATION AND TEMPERATURE CYCLE THEN DURING CHECKOUT TESTS. ALSO RECOMMENDED USE OF A LARGER MOTOR, NOT AS SENSITIVE TO THE SPEED VARIATIONS WITH LOAD CHANGE AS ARE PRESENTLY USED IN THE 80 AND 30 RPS UNITS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	BLV-99-24-3008-F TRANSDUCER, INSTRUMENTATION	FAR 68-01003-39	680505	SAN DIEG	YES O	YES BOURNS NO 2007571707
FAILURE MODE-INTERNAL LEAK. TRANSDUCER EXHIBITED A STATIC ERROR OF -1.74 PERCENT. FAILURE WAS ATTRIBUTED TO A POROUS AND POTTED BRAZE POINT ON THE BOURDON TUBE, ALLOWING SYSTEM PRESSURE TO LEAK INTO THE TRANSDUCER CASE. THIS RESULTED IN AN INCREASE IN THE TRANSDUCER REFERENCE PRESSURE, CAUSING THE NEGATIVE SHIFT.						
CORRECTIVE ACTION-VENDOR STATED AN IMPROPER WELD WAS THE BASIC CAUSE OF FAILURE, BUT THE DEFECTIVE UNIT WAS NOT DETECTED BECAUSE OF AN IMPROPER LEAK CHECK PROCEDURE WHICH SINCE HAS BEEN CORRECTED. SURVEY 34-68 WAS ISSUED TO SURVEY ALL TRANSDUCERS OF THIS PART NUMBER SUSPECTED OF POSSIBLE BOURDON TUBE LEAKAGE.						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-89-84-4874-F R-6	FAR 99-11110-8	7115 880428	FACTORY	YES NO	YES SPECTROL	992803
<p>FAILURE MODE-OPEN (ELECT). THE OUTPUT VOLTAGE OF THE AUDIOFREQUENCY DETECTOR SKIPPED FROM PLUS 3.635 TO 6.442 VOLTS DC. THIS OCCURRED DURING ADJUSTMENT OF POTENTIOMETER R-6. THEN THE UNIT COULD NOT BE ADJUSTED TO THE REQUIRED PLUS 3.635 PLUS OR MINUS 0.003 VOLTS DC. FAILURE WAS CAUSED BY SEVEN BROKEN WIRES ON THE MANDEL OF THE SPECTROL MODEL-80 POTENTIOMETER. THESE BROKEN WIRES WERE CAUSED BY A MANUFACTURING DEFECT IN THE POTENTIOMETER.</p> <p>CORRECTIVE ACTION-THE FOLLOWING ACTION WAS REQUESTED. 1. DISCONTINUE USE OF SPECTROL MODEL-80 POTENTIOMETERS. 2. RE MOVE ALL SPECTROL MODEL-80 POTENTIOMETERS FROM STOCK.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-89-84-4968-F RECEPTACLE	FAR 99-11850-1	850428	FACTORY	YES NO	CANNON ELECTRI	992809
<p>FAILURE MODE-STRUCTURAL. THE UMBILICAL RECEPTACLE ASSEMBLY WAS REJECTED WHEN THE RECEPTACLE FRONT INSULATOR, 27-079 97-5, WAS FOUND CRACKED AND DELAMINATED BETWEEN THE POLARIZING PINHOLE AND CONTACT HOLE 1. THE CRACKING AND DELAMINATION OCCURRED DURING DRILLING OPERATIONS BY CANNON ELECTRIC PERSONNEL. ALSO, THE POLARIZING PIN HOLE WAS NOT CHAMFERED.</p> <p>CORRECTIVE ACTION-THE PRINT CHANGE DEMOTING THE POLARIZING PIN HOLE CHAMFER WAS INITIATED AFTER THIS UNIT WAS BUILT. A CANNON ELECTRIC ENGINEERING EVALUATION IS IN PROCESS TO DETERMINE WHETHER A MATERIAL CHANGE FOR THESE INSULATORS IS FEASIBLE. GDC DESIGN STATES THAT NO DESIGN CHANGE WILL BE MADE.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	A-29-21-4988-F R-6	FAR 99-11110-801	1317 850427	FACTORY	YES NO	YES SPECTROL	992870
<p>FAILURE MODE-OPEN (ELECT). THE A-R AUDIOFREQUENCY DETECTOR MODULE FAILED TO FUNCTION WHEN THE UNIT WARMED UP. THE FAILURE WAS CAUSED BY A BROKEN WELDING IN THE SPECTROL MODEL-80, R-6 POTENTIOMETER, 86-78283-011.</p> <p>CORRECTIVE ACTION-THE FAULTY SPECTROL PICTURE WHICH CAUSED THE RESISTANCE WIRES TO BREAK WAS CORRECTED. THIS POTENTIOMETER WAS DECLINED INACTIVE FOR NEW DESIGN AFTER 19 FEBRUARY 1963. IT WAS REMOVED FROM THE PREFERRED PARTS LIST IN MARCH 1964.</p>							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERR	A-98-24-4898-F FAILED POWER SUPPLY	FAR 88-13840-801	191F 650486	FACTORY NO	YES NO	
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE TRANSDUCER POWER SUPPLY HAD NO OUTPUT WHEREAS 2.5 VOLTS SHOULD APPEAR. FAILURE ANALYSIS SHOWED THAT THE NO 8.5 VOLT OUTPUT WAS CAUSED BY A FAULTY CABLE IN THE COMPONENT TEST SET. ALSO THE ANALYSIS SHOWED THAT THE 8.000 VOLT REFERENCE VOLTAGE COULD NOT BE ADJUSTED WITHIN TOLERANCE WHEN INSTALLED IN THE NEXT ASSEMBLY. THE 8.000 VOLT OUTPUT WAS TOO HIGH DUE TO THE DES-6N ALLOWING THIS VOLTAGE TO BE TOO HIGH IN A WORST-CASE CONDITION.</p>						
<p>CORRECTIVE ACTION-NONE. THIS IS THE LAST PRODUCTION REQUIREMENT FOR THIS POWER SUPPLY.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERR	CT-89-24-3248 TRANSDUC COMMUTATOR	FAR 87-01836-7	650481	FACTORY NO	YES NO	FIFTH DIMENSION MARP-462
<p>FAILURE MODE-OUT OF TOLERANCE. APPROXIMATELY 6 MINUTES 18 SECONDS AFTER STARTING THE VIBRATION TEST, TRACE 2 INDICATED BREAKUP. A FAULTY DUMMY PACKAGE USED DURING THE TESTING WAS DISCOVERED BY PRODUCTION PERSONNEL. THE COMMUTATOR FUNCTIONED NORMALLY OUTSIDE OF THE DUMMY PACKAGE.</p>						
<p>CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER-POTENTIOMETER ERR	A-98-24-4878-F POTENTIOMETER	FAR 55-01120-3	150F 650420	FACTORY NO	YES NO	MAYBERRY NO 188-1A
<p>FAILURE MODE-FAIL DURING OPERATION. THE DIFFERENTIAL AMPLIFIER FAILED WHEN OUTPUT OF NEITHER CHANNEL WOULD RESPOND TO CHANGES IN GAIN SETTING. THE CHANNEL-A FAILURE WAS NOT CONFIRMED. THE CHANNEL-B FAILURE WAS CONFIRMED, AND WAS CAUSED BY THE INOPERATIVE BOURN POTENTIOMETER, 3281L-1-204. THE POTENTIOMETER WIPER STOP TAB WAS APPARENTLY BENT DURING ASSEMBLY, ALLOWING THE WIPER TO TRAVEL PAST ITS STOP AND DROP OFF THE ELEMENT DURING ADJUSTMENT. IT WAS CONCLUDED THAT THE AMPLIFIER MAY HAVE BEEN OPERATED WITHOUT SIGNAL INPUT, AND THAT THE POTENTIOMETER WAS TURNED PAST THE STOP IN AN ATTEMPT TO OBTAIN A CORRECT OUTPUT.</p>						
<p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERR	A-98-24-4878-F AMPLIFIER	FAR 55-01120-3	150F 650419	FACTORY NO	YES NO	MAYBERRY NO 188-1A
<p>FAILURE MODE-FAIL DURING OPERATION. THE DIFFERENTIAL AMPLIFIER FAILED WHEN OUTPUT OF NEITHER CHANNEL WOULD RESPOND</p>						

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TO CHANGED IN GAIN SETTING. THE UNIT MAY HAVE BEEN OPERATED WITHOUT SIGNAL INPUT.							992601
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS	99C3808-1 TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS	UTP-0UAL/PPT 99-01003-13	650415	607C	NO	BOURNS NO 20042063U0	991180
FAILURE MODE - STRUCTURAL. THERE WAS A SHIFT IN THE CALIBRATION READINGS EXCEEDING +6 PERCENT THROUGHOUT THE CALIBRATION RANGE. ALLOWABLE IS PLUS OR MINUS 1 PERCENT. SHIFT WAS CAUSED BY INADVERTENT OVER-PRESSURIZATION TO AN UNKNOWN PRESSURE. B/N 302-1340. PET LOT 710-1							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC REGULATOR, ELECTRICAL-POTENTIOMETER	SLV-99-24-4871-F TELEMETRY SET AND TRANSDUC REGULATOR, ELECTRICAL-POTENTIOMETER	FAR 99-11117-1	650414	FACTORY	YES	NO	992603
FAILURE MODE-CONTAMINATION. THE REGULATOR ASSEMBLY HAD A MAXIMUM OUTPUT OF 2.368 VOLTS DC. REQUIRED OUTPUT IS 2.8 V OLTS DC TO 7.0 VOLTS DC. THE FAILURE WAS CAUSED BY THE BIAS VOLTAGE BEING OUT OF SPECIFICATIONS DUE TO A NON-ADJUSTABLE POTENTIOMETER, 88-73263-G08. THE POTENTIOMETER COULD NOT BE ADJUSTED BECAUSE THE THREADS ON THE DRIVE SCREW HAD BEEN STRIPPED DUE TO POTTING INSIDE THE POTENTIOMETER. THE POTTING COMPOUND COULD HAVE ENTERED THE POTENTIOMETER DUE TO A LOOSE CAP PLATE SEAL.							
CORRECTIVE ACTION-THE RECEIVING INSPECTION ACCEPTANCE PROCEDURE HAS BEEN REVISED TO REQUIRE AN IMMERSION TEST IN ACCORDANCE WITH MIL-STD-202-D.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS	99C4280 TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS	UTP-0UAL/PPT 99-01004-33	650406	607C	YES	WIANCKO NO P2-4282-33	990172
FAILURE MODE - OUT OF TOLERANCE. DURING THE PROOF PRESSURE PORTION OF THE CALIBRATION RUN AT MINUS 45 DEGREES F. THE SPECIMEN OUTPUT WAS 7.42 VDC. PROCEDURE REQUIREMENTS SPECIFY A MAXIMUM OUTPUT OF 5.4 VDC. B/N 4030310. THE DISCREPANCY WAS CAUSED BY AN IMPROPERLY WELDED INTERNAL CONNECTION BETWEEN THE 1.47 K RESISTOR AND IN 487 DIODE IN THE LIMITING OR CLAMPING CIRCUIT.							
CORRECTIVE ACTION - NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	SLV-89-24-4966-F PRESSURE TRANSDUCER	PAR 89-01009-10	990401	FACTORY	YES BOURN NO 8004208309	992843
<p>FAILURE MODE-INTERNAL LEAK. THE PRESSURE TRANSDUCER WAS REJECTED WHEN IT SHOWED A PLUS 10.8 PERCENT STATIC ERROR. THE UNIT LOST VACUUM REFERENCE PRESSURE THROUGH A LEAK IN THE ELECTRICAL RECEPTACLE SOLDER JOINT. IT WAS CONCLUDED THAT THE LEAKAGE WAS PROBABLY DUE TO MISHANDLING.</p> <p>CORRECTIVE ACTION-APPROPRIATE PERSONNEL WERE MADE AWARE OF THE FAILURE AND WERE CAUTIONED CONCERNING PACKAGING AND HANDLING OF TRANSDUCERS.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC INSTRUMENTATION DISCONNECT ERR	BRF65-020/AD1-401-00-297 INSTRUMENTATION DISCONNECT	FLIGHT	2970	A-1	YES NO	991330
<p>FAILURE MODE-OPEN (ELECT). IMPLICIT STAGING DISCONNECT PLUG (100P1) WAS SHAKEN LOOSE BY ENGINE VIBRATION AT ENGINE START.</p> <p>SYSTEM EFFECT-OPERATION STOPPED PREMATURELY. 16 TELEMETRY MEASUREMENTS MONITORING THE BOOSTER PACKAGE AND THE SE EQUIPMENT POD FAILED TO PROVIDE DATA.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-LAUNCH PROCEDURES 27-24801 27-90948 AND 27-90758 CHANGED TO INCLUDE A PULL TEST FOR PLUGS OF THIS TYPE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ABSOLUTE PRESSURE TRANSDUCER ERR	LV-49-24-4965-F ABSOLUTE PRESSURE TRANSDUCER	PAR 27-01386-38	2250	FACTORY	NO SERVONIC NO 2091-0939	992844
<p>FAILURE MODE-OPEN (ELECT). THE ABSOLUTE-PRESSURE TRANSDUCER WAS REJECTED WHEN THE OUTPUT WAS 34 PERCENT INFORMATION BAND WIDTH, WHEN 0.4 PERCENT ISN WAS EXPECTED. ALSO, THERE WAS NO CONTINUITY BETWEEN PIN C, LOW SIDE OF RESISTANCE MEASURING, AND ANY OTHER PIN. LACK OF CONTINUITY WAS DUE TO AN OPEN ON THE LOW END, PIN C, OF THE POTENTIOMETER. THE OPEN CIRCUIT WAS CAUSED BY EXCESSIVE CURRENT FLOWING THROUGH THE WIPER. EXCESSIVE CURRENT RESULTED FROM USING MISSILE CHECKOUT DEVICES SUCH AS SIMPSON MULTI METERS CAPABLE OF DRAWING MORE THAN 5 MA CURRENT. MEAS H13UP.</p> <p>CORRECTIVE ACTION-THE VACUUM-TUBE VOLTMETER IN THE TEST EQUIPMENT TOOL 3992 CONSOLE IS PRESENTLY BEING USED TO CHECK TRANSDUCERS AND THEIR CIRCUITS. USE OF THIS INSTRUMENT INSURES A CURRENT LESS THAN 5 MA.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-RECTIFIER ERS	LY-98-24-4990-F TELEMETRY SET AND TRANSDUC TLM CANISTER-RECTIFIER	FAR 69-11100-813	7111 690322	FACTORY	YES	BENDIX NO 3139740-3
<p>FAILURE MODE-OUT OF SPEC. MEASUREMENT E96V, GUIDANCE 118 VOLTS 400 CPS PHASE-A, MEASURED 92 PERCENT INFORMATION BAN WIDTH AND WAS ABOUT 5.5 PERCENT 1BW GREATER THAN MEASUREMENT E81V, PHASE-A AT THE OUTPUT OF THE INVERTER POWER SUPPLY. THROUGHOUT THE TEST-WHEREAS 51.5 PERCENT 1BW OR 118.5 VOLTS AC WERE EXPECTED. THE FAILURE WAS CAUSED BY THE MONITOR CRYSTAL RECTIFIER WHICH HAD AN IMPROPERLY ADJUSTED R-24 POTENTIOMETER. IT IS THEORIZED THAT THE RECTIFIER WAS IM PROPERLY ADJUSTED BECAUSE MEASUREMENT E96V WAS A FUNCTION OF PHASE-B INSTEAD OF PHASE-A AS ON THE MISSILE.</p>						
<p>CORRECTIVE ACTION-ECN38334 TO DRAWING 69-11100 WAS ISSUED 23 MAY 1965 MAKING THE CHANGES NECESSARY FOR THE FACTORY TO USE PHASE-A FOR MEASUREMENT E96V AS IS DONE ON THE MISSILE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	AA65-0015/P2-401-00-204 TELEMETRY SET AND TRANSDUC TLM CANISTER	COUNTDOWN 27-11541-948	2040 690321	ETR-12 -4920	YES NO	
<p>FAILURE MODE-OUT OF SPECIFICATION, EXCESSIVE NOISE WAS OBSERVED ON ALL CONTINUOUS CHANNELS DURING AND FOLLOWING SCT NUMBER 1.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION, EXCESSIVE NOISE IN ALL CONTINUOUS CHANNELS ON RF NUMBER 1.</p> <p>VEHICLE EFFECT-NONE, NO HOLD INITIATED.</p> <p>CORRECTIVE ACTION-CANISTER REPLACED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	LY-98-24-4998-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	FAR 7-01720-8	2040 690319	ETR CH.1 2	YES	BURNS NO 73511-0-35-752
<p>FAILURE MODE-INTERNAL LEAK. DURING PROCEDURE 27-90681 THE TRANSDUCER INDICATED 600 PSIA WITH 1000 PSIA APPLIED TO THE SYSTEM, UPON REMOVAL OF THE TRANSDUCER SILICONE DAMPING FLUID WAS LEAKING FROM THE ELECTRICAL PLUG END. TESTING CONFIRMED LEAKAGE INTO THE TRANSDUCER CASE AND OIL EVIDENCED ON THE OUTSIDE OF THE CASE. THE CAUSE OF THE FAILURE IS UNKNOWN BECAUSE THE ANALYSIS WAS STOPPED BEFORE ITS COMPLETION. MEAS F246P.</p> <p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	LY-98-24-4993-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	FAR 7-01721-8	690316	FACTORY	YES	BURNS NO 71724-0-10-798
<p>FAILURE MODE-CONTAMINATION. THE UNIT WAS REJECTED WHEN THE OUTPUT WAS ERRATIC DURING THE FIRST X-Y PLOT OF THE CALI</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							092690
	<p>BRATION RUN. THE REPORTED FAILURE WAS NOT CONFIRMED. HOWEVER, IT IS POSSIBLE THAT SOME OF THE NON-METALLIC PARTICLES FOUND IN THE SILICONE OIL COULD HAVE LOOSED ON THE RESISTANCE MANDEL AND CAUSED THE DISCONTINUITY.</p>						
	<p>CORRECTIVE ACTION-THIS TRANSDUCER WAS SHIPPED TO ROC ON 4 SEPTEMBER 1985. SINCE THEN BOURNS HAS TAKEN MANY STEPS TO IMPROVE THE TRANSDUCER INCLUDING CONTROLS ON POTTING COMPOUND, PRE-CLOSURE INSPECTION AND X-Y PLOTS, OUTPUT VOLTAGE VERSUS APPLIED PRESSURE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SLV-AB-24-4983-F PRESSURE TRANSDUCER	FAR 69-01003-33	7111 630317	FACTORY	YES BOURNS NO	2007371704	092690
<p>FAILURE MODE-OPEN (ELECT). TWO PRESSURE TRANSDUCER WERE REJECTED WHEN INTERMITTENT OPEN CONDITIONS WERE OBSERVED. THE INTERMITTENT OPEN CIRCUITS WERE CAUSED BY DETEIORATION OF THE EPOXY ADHESIVE USED IN THE TRANSDUCER ASSEMBLY AND BY MANY MIGRATING EPOXY PARTICLES BETWEEN THE WIPER AND THE POTENTIOMETER COIL. MEAS P87P AND P80P.</p>							
<p>CORRECTIVE ACTION-BOURNS HAS CHANGED THEIR ADHESIVE FROM 81663 R-314 TO GE 9522.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	ZTC4293 TEMPERATURE TRANSDUCER	UTP-PET 7-01833-5	030317	607C	YES LEWIS NO	588348	091179
<p>FAILURE MODE - OUT OF SPECIFICATION. INSULATION RESISTANCE WAS BELOW 20 MEGOHMS SPECIFIED. THIS RESULTED FROM NOT USING THE REVISED TEST PROCEDURE TO PROTECT THE TRANSDUCER DURING CALIBRATION IN ICE WATER. B/N 901-0308. CORRECTIVE ACTION-TEST PERSONNEL REINSTRUCTED IN USE OF REVISED TEST PROCEDURE.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-SLV-AB-24-4983-F PRESSURE TRANSDUCER	FAR 27-01858-49	7111 830311	FACTORY	YES MIANCKO NO	54103-9	090845
<p>FAILURE MODE-DRIFT. DURING FINAL CHECKOUT, THE OUTPUT AT LOW PRESSURE WAS OUT OF BAND. REFER TO FAR-SLV-99-24-4972 FOR A SIMILAR CASE. THE LOW OUTPUT WAS PRESUMED TO BE DRIFT, DUE TO THE IMPROPER INSTALLATION OF CARBON RESISTORS RATHER THAN PRECISION TYPE.</p>							
<p>CORRECTIVE ACTION-VENDOR REPAIRING ALL FAILURES OF THIS TYPE AT OWN EXPENSE. VENDOR CORRECTIVE ACTION INCLUDED DISCIPLINARY LAYOFFS AND TRANSFERS.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER TRANSDUCER ERS	FAR-SLV-AB-24-4989-F ACCELEROMETER TRANSDUCER	FAR 7-01418-5	7112 980311	FACTORY	YES BOPF-WARNER NO	9747-B	
<p>FAILURE MODE-CONTAMINATION. DURING FINAL CHECKOUT, THE ACCELEROMETER OUTPUT WAS BELOW SPECIFICATION. A SMALL CHIP WAS FOUND BETWEEN MAGNETS AND ONE MAGNET WAS CRACKED.</p>							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRE OTH	VENDOR NAME VENDOR PART NO	
							890676
	CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR WAS REQUESTED TO REVIEW MANUFACTURING PROCEDURES. IN COMPLIANCE, THE VENDOR REVISED FINISH, CLEANING, AND INSPECTION METHODS TO PRECLUDE RECURRENT OF CONTAMINATION.						890691
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	FAR-A-90-24-4985-F FAR 27-01882-81	650306	FACTORY	YES	MIANCO NO 54103-13	
	FAILURE MODE-DRIFT. DURING CALIBRATION, TRANSDUCER OUTPUT WAS BELOW THE ALLOWED LOWER LIMIT, CAUSED BY DRIFT CHARACTERISTICS IN THE CARBON RESISTORS WHICH WERE IMPROPERLY INSTALLED. FAILURE ANALYSIS WAS DISCONTINUED BECAUSE OF SIMILARITY TO THE FAILURE DESCRIBED IN FAR-84V-24-4978.						
	CORRECTIVE ACTION-VENDOR REPAIRING ALL FAILURES OF THIS TYPE AT OWN EXPENSE. VENDOR CORRECTIVE ACTION INCLUDED DISCIPLEINARY LATOFFS AND TRANSFERS.						892084
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER AMPLIFIER, TRANSMITTER ERS	LY-98-24-4973-F FAR 27-01812-7	204D 650305	ETR-CX.3	YES	BENDIX NO	
	FAILURE MODE-ERRATIC OPERATION. THE TELEMETRY HAD SPURIOUS RADIATION AT 235.039 AND 239.137 MEGACYCLES. NOMINAL FREQUENCY IS 232.4 MEGACYCLES PLUS OR MINUS 0.01 PERCENT. THE FAILURE WAS CAUSED BY A MISMATCH OF TRANSMITTER OUTPUT. 27-01810-T. TO AMPLIFIER INPUT, 27-01812-7 IN TELEPAR 93-13866-847.						
	CORRECTIVE ACTION-THIS UNIT WAS SHIPPED FROM BENDIX-PACIFIC BEFORE JUNE 1964. IN JUNE 1964 THEIR TEST PROCEDURES WERE REVISED TO INCLUDE A RADIOFREQUENCY INTERFERENCE CHECK ON ALL UNITS AS PART OF THE ACCEPTANCE CRITERIA.						890776
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	GDC/ZZH83-008-D41040-7/L3-FMO-03-71 TRANSDUCER-SUSTAINER FUEL PUMP	7104 650304	MTR	YES	NO	
	FAILURE MODE-LEAN-EXTERNAL AT THE SUSTAINER FUEL PUMP INLET PRESSURE TRANSDUCER DURING THE FUEL LEAK CHECK.						
	SYSTEM EFFECT-NONE.						
	VEHICLE EFFECT-NONE.						
	CORRECTIVE ACTION-RE-FORGED THE SEAL ON THE TRANSDUCER.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	ETR-009/P2-4CO-08-204	COMPOSITE-J FACT	2040 650303	ETR-12	YES NO	997331
FAILURE MODE-FAIL DURING OPERATION. SPURIOUS SIGNALS AT 227.5 AND 235.0 MEGACYCLES WERE OBSERVED WHILE TELEMETRY WAS RADIATING.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ABSOLUTE PRESSURE TRANSDUCER ERS	SLV-9D-24-4992-F	FAR 09-01003-39	7104 650302	PALC2-3	YES BOURNS NO	2007571707 992640
FAILURE MODE-CONTAMINATION. THE UNIT FAILED WHEN IT EXHIBITED AN INTERMITTENT OUTPUT. THE FAILURE IS ATTRIBUTED TO CONTAMINATION ON THE RESISTANCE MANDREL CAUSING DISCONTINUITY. PREVIOUS ANALYSES REVEALED AN EPOXY ADHESIVE USED IN THE TRANSDUCERS DETERIORATES AND MIGRATES THROUGHOUT THE SILICONE OIL.						
CORRECTIVE ACTION-BOURNS STATED THAT CLEANLINESS IS CONSTANTLY BEING STRESSED AND THAT PERSONNEL WERE AGAIN REMINDED OF THE NECESSITY FOR THOROUGHLY CLEANING UNITS. ALSO BOURNS HAS CHANGED THEIR ADHESIVE FROM BIGGS R-314 TO GE 9552						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR ERS	CT-99-24-3236	FAR 27-12291-1	650302	FACTORY	YES NO	992563
FAILURE MODE-ERRATIC OPERATION. CALIBRATION PULSES WERE INTERMITTENTLY MISSING. FAILURE COULD NOT BE CONFIRMED.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	ETR-009/P2CO-01-204	COMPOSITE-B FACT	2040 650301	ETR-12	YES NO	997830
FAILURE MODE-FAIL DURING OPERATION SPURIOUS SIGNALS AT 235.0 MEGACYCLES WERE OBSERVED WHILE TELEMETRY WAS RADIATING						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-8LV-99-24-4954-F FAR-8LV-99-24-4954-F 87-01892-49	FAR 87-01892-49	680301	FACTORY	YES NO	WIANCKO NO 54103-9
<p>FAILURE MODE-OUT OF TOLERANCE THREE OF THESE TRANSDUCERS WERE REJECTED DURING CALIBRATION, FOR EXCEEDING THE OUTPUT ERROR BAND. ONE OF THE THREE WAS TESTED AND WAS WITHIN ERROR BAND. IT HAD PRECISION RESISTORS. THE OTHER TWO WERE OUT OF BAND. AND HAD CARBON RESISTORS WHICH WERE IMPROPERLY INSTALLED.</p> <p>CORRECTIVE ACTION-VENDOR REPAIRING ALL FAILURES OF THIS TYPE AT OWN EXPENSE. VENDOR CORRECTIVE ACTION INCLUDED DISCIPLINARY LAYOFFS AND TRANSFERS.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	CT-98-24-3239 FAR 87-01892-49	FAR 87-01892-49	1560 650227	36A	NO NO	WIANCKO 54103-9
<p>FAILURE MODE-STRUCTURAL. TRANSDUCER HAD A NEGATIVE OUTPUT AT ZERO PSID DUE TO A SHIFT CAUSED BY DAMAGE TO THE BOURDON TUBE AS A RESULT OF EXCESSIVE POSITIVE PRESSURE. ALSO, THE BOURDON TUBE RETAINING WIRE WAS BENT AND IMPROPERLY BRAZED.</p> <p>CORRECTIVE ACTION-RE-EXAMINE ALL PROCEDURES APPLICABLE TO AUGSP TO ELIMINATE ANY POSSIBILITY THAT MORE THAN 15 PSID IS APPLIED TO THESE UNITS. INFORM VENDOR OF POTENTIAL PROBLEM AREA CONCERNING BRAZED JOINTS ON BOURDON TUBE RETAINING WIRES.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER-SCREW ERS	8LV-99-24-4954-F FAR 87-01810-9	FAR 87-01810-9	7115 650225	FACTORY	YES NO	BENDIX 3131107-3
<p>FAILURE MODE-SHORT (ELECT). THE TRANSMITTER WAS REJECTED WHEN OUTPUT WAS MEASURED AT 5.5 WATTS OF RADIO FREQUENCY ENERGY AT 250.677 MCPS. SPECIFICATIONS REQUIRE AT LEAST 7 WATTS AT 249.9 PLUS OR MINUS 0.025 MCPS. THE FAILURE WAS CAUSED BY A DEFECTIVE HEAT SINK MOUNTING SCREW. THE SCREW ON THE SCREW DUG INTO THE HEAT SINK, REMOVING ITS ELECTRICAL INSULATING COVERING AT THE INTERFACE OF THE HEAT SINK WITH THE TRANSMITTER CHASSIS. THIS BREAK IN HEAT SINK COVERING CREATED A SHORT CIRCUIT WHEN THE MOUNTING SCREW WAS POSITIONED.</p> <p>CORRECTIVE ACTION-THE VENDOR ASSEMBLY LINE PERSONNEL AND INSPECTORS WERE MADE AWARE OF THE FAILURE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TELEMETRY-WIRING ERS	CT-99-24-3231 FAR 88-13066-040	FAR 88-13066-040	650223	FACTORY	YES NO	
<p>FAILURE MODE-SHORT, ELECTRICAL. TELEMETRY WAS REPORTED TO HAVE BEEN FOUND WITH BURNED WIRES IN THE 28 VOLT POWER INPUT</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
UT AND OUTPUT TO THE TRANSIENT SUPPRESSOR. WHEN OPENED FOR FAILURE ANALYSIS THE WIRES COULD NOT BE FOUND-THEY APPEAR NTLY HAD BEEN REMOVED AND REPLACED. NO INTERNAL DAMAGE COULD BE FOUND. IT WAS CONCLUDED THE REPORTED BURNT WIRES WER E CAUSED BY A 28 VOLT SHORT CIRCUIT EXTERNAL TO THE TELEMETER.							092569
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER TRANSDUCER ERS	FAR-SLV-A9-24-4943 FAR-SLV-A9-24-4943	FAR 7-01413-9	7111 650223	FACTORY	YES BORG-WARNER NO 9747-B		090677
FAILURE MODE-CONTAMINATION. DURING FINAL CHECKOUT OF 7111, THE ACCELEROMETER HAD NO OUTPUT. A SMALL CHIP WAS FOUND WHICH PREVENTED THE VIBRATION WIRE FROM MOVING.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR WAS REQUESTED TO REVIEW MANUFACTURING PROCEDURES. IN COMPLI ANCE, THE VENDOR REVISED FINISH, CLEANING, AND INSPECTION METHODS TO PRECLUDE RECURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	PET-TP-2-0080.1 PET-TP-2-0080.1	UTP-PET 7-01731-1	650222	FACTORY	YES BOURNS NO 71724-D-6-752		090766
FAILURE MODE-OUT OF TOLERANCE. DURING POST LOW, HIGH AND AMBIENT TEMPERATURE TESTS, THE UNIT EXHIBITED AN OUT OF TO LERANCE ERROR BAND OF -0.18 AND -0.36 PERCENT FSV/R. THE FAILURE WAS ATTRIBUTED TO VENDOR QC INSPECTION BEING PERFOR MED ONLY AT AMBIENT TEMPERATURE.							
CORRECTIVE ACTION-CD/C REJECTED PET LOT 13 AND RETURNED THE TRANSDUCERS TO THE VENDOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-CONNECTOR ERS	A-A9-24-4970-F A-A9-24-4970-F	FAR 27-14596-1	147F 650219	FACTORY	YES BENOIX NO		092667
FAILURE MODE-FAIL DURING OPERATION. TELEMETER ASSEMBLY 2 HAD A ZERO VOLT DC OUTPUT ON 102U1J8-6-AND N WHEREAS 5.05 VOLTS DC WAS EXPECTED. THE FAILURE WAS UNCONFIRMED. IT IS ASSUMED THAT THE UNCONFIRMED FAILURE WAS CAUSED BY AN INAD VERTENTLY LOOSEMED CONNECTOR ON THE MISSILE DURING INITIAL TROUBLESHOOTING OF THE PROBLEM.							
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR, DIODE ERR	A-48-24-4970-F A-48-24-4970-F	FAR 27-13094-1	147F 680219	FACTORY	YES NO	BENDIX NO
<p>FAILURE MODE-SHORT (ELECTRICAL). IN TELEMETRY ASSEMBLY 1, P/N 27-13497-3, THE CALIBRATION SHIFTED FROM DATA LEVEL 1 TO ZERO PERCENT INFORMATION BANDWIDTH AND STAYED THERE. IT SHOULD HAVE SHIFTED BACK AND FORTH AT APPROXIMATELY ONE-HALF SECOND INTERVALS. THE FAILURE WAS TRACED TO THE CALIBRATOR, 27-13094-1. THE MULTIVIBRATOR OF THE CALIBRATOR WOULD NOT OPERATE BECAUSE OF TWO SIMULTANEOUS FAILURES. 1. ZENER DIODE CR-1, 67-19003-301, 692C0, MANUFACTURED BY TEXAS INSTRUMENTS, WAS ELECTRICALLY LEAKY. 2. TRANSISTOR Q-4, 2N910, MANUFACTURED BY GENERAL ELECTRIC, SHORTED COLLECTOR TO EMITTER.</p> <p>CORRECTIVE ACTION-THE TEXAS INSTRUMENTS MANUFACTURING SPECIFICATION WAS REVISED TO INCLUDE A 100 PERCENT SCREEN OF DEVICES FOR CENTERING OF SILICON WAFER ON KOVAR TAB. GENERAL ELECTRIC DISCLAIMED RESPONSIBILITY FOR THE TRANSISTOR FAILURE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	CT-98-24-3241 CT-98-24-3241	FAR 27-01386-29	156D 650219	ETR	YES NO	SERVONIC INST.
<p>FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER READ 4 PERCENT LOW DUE TO AN INHERENT PRESSURE RIPPLE IN THE HYDRAULIC RETURN SYSTEM WEARING OUT THE MANDEL IN THE 25 TO 100 PSIA REGION.</p> <p>CORRECTIVE ACTION-DESIGN CHANGE REQUIRED. THREE SUGGESTIONS. (1) PLACE AN ORIFICE BEFORE THE TRANSDUCER PRESSURE PORT TO DAMP THE PRESSURE RIPPLE, (2) REPLACE POTENTIOMETRIC TRANSDUCER WITH A VARIABLE RELUCTANCE OR STRAIN-GAGE TYPE, AND (3) MODIFY THE BOOSTER HYDRAULIC RETURN SYSTEM TO ELIMINATE OR REDUCE THE PRESSURE RIPPLE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	69-4110 69-4110	UTP-PET 7-01731-3	650217	6DC	YES NO	BOURNS 71724-0-10-732
<p>FAILURE MODE-OUT OF TOLERANCE. DURING THE TEMPERATURE TEST ON 9 MARCH 1965 THE ERROR WAS ALSO HIGH OUT OF TOLERANCE. THIS IS AN OLDER TYPE TRANSDUCER, SUBJECT TO DISCREPANCIES OF THIS TYPE, PET LOT TESTING, BY REVELATION OF SUCH PERFORMANCE, RESULTS IN THE REJECTION OF BELOW-STANDARD UNITS. (S/N 4181974).</p> <p>CORRECTIVE ACTION-PET LOT 27 WAS REJECTED ON 18 MARCH 1965.</p>						

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B SUB-SYSTEM	HZ-90-24-4961-F TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	FAR 27-12768-911	650216	WTR	YES	BENDIX-PACIFIC NO	892890
<p>FAILURE MODE-ERRATIC OPERATION. THE RADIO FREQUENCY TRANSMITTING SECTION EMITTED SPURIOUS SIGNALS. THIS UNIT CONSISTS OF 1. TRANSMITTER, 27-01810-1. 2. POWER AMPLIFIER, 27-01812-1. 3. FILTER, 27-01808-1. THE FAILURE IS ATTRIBUTED TO LOW POWER OUTPUT FROM THE TRANSMITTER AND LOW POWER AMPLIFIER OUTPUT. THESE CONDITIONS WERE CAUSED BY THE TRANSMITTER NOT BEING TUNED PROPERLY, AND THE TUBES IN THE POWER AMPLIFIER BEING OVERDRIVEN. ALSO, THE RF SECTION WAS NOT A MATCHED SET.</p> <p>CORRECTIVE ACTION-THIS UNIT WAS SHIPPED FROM BENDIX-PACIFIC IN APRIL 1964. IN JULY 1964 THEIR TEST PROCEDURES WERE REVISED TO INCLUDE A RADIOFREQUENCY INTERFERENCE CHECK ON ALL UNITS AS PART OF THE ACCEPTANCE CRITERIA.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER-ERS	CT-98-24-3238 COMPOSITE-FRD/DPL	156D 650216	ETR35A	YES	BOURNS NO	2007371703	891360
<p>FAILURE MODE-ERRATIC OPERATION. A LOW AND ERRATIC OUTPUT WAS RECORDED DURING TESTING OF CIP-INT-0000. THE FAILURE WAS AS CONFIRMED AS REPORTED. LACK OF ADHESION BETWEEN THE SOLDER AND TRANSDUCER CASE RESULTED IN A FRACTURED SOLDER JOINT. LOSS OF INTERNAL PRESSURE THEREFORE CAUSED THE NEGATIVE SHIFT IN VOLTAGE OUTPUT.</p> <p>CORRECTIVE ACTION-VENDOR SHOULD BE INFORMED OF THIS FAILURE AND THE RESULTS OF THIS ANALYSIS. FLUXING AND SOLDERING PROCEDURES BEING USED SHOULD BE INVESTIGATED TO PREVENT RECURRENCE OF THE FAILURE MODE DESCRIBED IN THIS REPORT.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER-ERS	FAR-8LV-99-24-4936 COMPOSITE-FRD/DPL	156D 650216	ETR35A	YES	BOURNS NO	2007371703	891360
<p>FAILURE MODE-DRIFT. 24 TRANSDUCERS WERE REJECTED IN A 3-MONTH PERIOD BEFORE DATE OF 650215. ALL PARTS SHOWED MINOR CHANGES IN STATIC ERROR BAND. TESTS AND ANALYSIS REVEALED THE CAUSE OF FAILURE TO BE NON-STABLE COMPENSATING RESISTORS.</p> <p>CORRECTIVE ACTION-THE FAILURES WERE CONFIRMED. FAR 8LV-99-24-4936 WAS ISSUED, AND THE VENDOR RESPONDED BY CHANGING THE TYPE OF TRANSISTOR TO A MORE STABLE FILM TYPE. THIS ACTION RESULTED IN A NEW PART NO. 69-01004-123.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER-ERS	69C4148 UTP-PET	650215	60/C	YES	BOURNS NO	2007371707	892890
<p>FAILURE MODE-OUT OF SPECIFICATION. THE FOLLOWING DISCREPANCIES WERE NOTED DURING EXAMINATION OF THE TRANSDUCER. THE</p>							

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRE OTH	VENDOR NAME VENDOR PART NO	
1.12 INCH DIMENSION WAS 1.131 INCH. .001 INCH OVER MAXIMUM ALLOWABLE. THE MOUNTING SURFACES HAD NICKS AND BURRS WHICH PREVENTED THE UNIT FROM LYING FLAT ON THE MOUNTING SURFACE. EPOXY SEALANT USED IN THE EVACUATION HOLE PROTRUDED ABOVE THE SURFACE.							098311
CORRECTIVE ACTION-CAR 5038, 21 JUNE 1965, REQUESTED THAT THE VENDOR TAKE CORRECTIVE ACTION TO ASSURE THAT TRANSDUCER MEET SPECIFICATION REQUIREMENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL-PRESSURE TRANSDUCER ERS	CT-98-24-3242 FAR	27-01552-49	136D 430215	ETR	NO NO	MIANCKO NO 54103-9	090590
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER HAD A NEGATIVE OUTPUT AT ZERO PSID DUE TO A SHIFT CAUSED BY DAMAGE TO THE BOURDON TUBE AS A RESULT OF EXCESSIVE POSITIVE PRESSURE. ALSO, TWO SOLDERED TERMINATIONS WERE FOUND TO PROTRUDE THROUGH THE POTTING SURFACE.							
CORRECTIVE ACTION-RE-EXAMINE ALL PROCEDURES APPLICABLE TO AUMIP TO ELIMINATE ANY POSSIBILITY THAT MORE THAN 15 PSID IS APPLIED TO THESE UNITS. INFORM THE VENDOR OF THE POTENTIAL PROBLEM AREA CONCERNING SOLDERED TERMINATIONS PROTRUDING THROUGH THE POTTING SURFACE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	69-2037	UTP-SLT 7-01033-5	050212	GO/C	YES NO	LEWIS NO 368348	091178
FAILURE MODE-STRUCTURAL. ELEMENT 8 OPENED. DURING THE X-AXIS TEMP-VIBRATION RUN AT 440 CPS. PERIODIC RE-EVALUATION TESTS ON THIS UNIT WERE COMPLETED 2-8-65. THIS SPEC. IS BEYOND THE SCOPE OF THE PROCUREMENT SPECIFICATION.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER, DIODE ERS	NZ-A9-24-4947-F	PAR 27-12782-813	899D 950210	FACTORY	YES NO	BENOIX	
FAILURE MODE-OUT OF TOLERANCE. TELEMETER FAILED WHEN CHANNEL 11 INDICATED NOISE OF 8 PERCENT INFORMATION BANDWIDTH. 5 PERCENT IS THE MAXIMUM ALLOWED. FAILURE WAS DUE TO A TRANSMITTER FAILURE CAUSED BY THE VARACTOR DIODES OPERATING WITH TOO HIGH A BIAS VOLTAGE. THIS FORCED THE DIODES TO OPERATE IN THEIR UNSTABLE REGION, PERMITTING A RELAXATION OSCILLATION OR NOISE PRODUCTION PHENOMENON TO EXIST.							
CORRECTIVE ACTION-RECOMMENDED VENDOR SELECT VARACTOR BIASING RESISTORS DURING TRANSMITTER ASSEMBLY TO AVOID OPERATION OF THE VARACTOR IN ITS UNSTABLE REGION. ALSO RECOMMENDED VENDOR REVISE QUALITY CONTROL TEST PROCEDURES TO TEST FOR							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
OUTPUT DISTORTION BETWEEN TEMPERATURE LIMITS WHILE VARYING INPUT VOLTAGE OVER THE SPECIFICATION RANGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER POWER SUPPLY-DIODE ERS	A-99-24-4931-F TRANSDUCER POWER SUPPLY-DIODE	FAR 58-13840-3	950209	FACTORY	YES NO	991626 991627
FAILURE MODE-STRUCTURAL. TRANSDUCER POWER SUPPLY INDICATED ERRATIC OPERATION DURING VIBRATION ELECTRICAL TEST. FAILURE WAS CONFIRMED AND ATTRIBUTED TO AN INTERMITTENT CONNECTION IN THE REGULATOR DIODES, CR-5, IM430A. THE INTERMITTENT CONNECTION RESULTED FROM A BROKEN LEAD WIRE TO THE CRYSTAL WITHIN THE DIODE.						
CORRECTIVE ACTION-VENDOR WAS NOTIFIED OF THE FINDINGS OF THIS REPORT. IT WAS ALSO VERIFIED THAT THE POWER SUPPLY HAD NOT EXCEEDED ITS MAXIMUM VIBRATION TIME.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER POWER SUPPLY-TRANSISTORS ERS	A-99-24-4931-F TRANSDUCER POWER SUPPLY-TRANSISTORS	FAR 58-13840-3	950209	FACTORY	YES NO	991626
FAILURE MODE-SHORT (ELECT). TRANSDUCER POWER SUPPLY FAILED WHEN ALL OUTPUT VOLTAGES WERE ZERO. FAILURE WAS CONFIRMED BUT CAUSE OF FAILURE COULD NOT BE DETERMINED. TWO SHORTED TRANSISTORS WERE REPLACED AND THE ORIGINAL FAILURE WOULD NOT RECUR.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER POWER SUPPLY-WIRING ERS	MZ-99-24-4251-F TRANSDUCER POWER SUPPLY-WIRING	FAR 27-01611-1	148F 950205	FACTORY	YES NO	992692
FAILURE MODE-SHORT (ELECT). THE POWER SUPPLY FAILED DURING NEXT-ASSEMBLY ELECTRICAL TESTING. THE TEST SET CIRCUIT BREAKER ACTIVATED WHEN 28-VOLT DC WAS APPLIED. THE FAILURE WAS ISOLATED TO THE SHIELDED WIRE CONNECTING THE INPUT TERMINAL TO RESISTOR R-13 AND TO CAPACITORS C-10 AND C-1. THE SHIELDED WIRE WAS BEING PINCHED BY THE CIRCUIT BOARD, CAUSING A SHORT CIRCUIT.						
CORRECTIVE ACTION-THE VENDOR STATED THAT THE ROUTING AND SECURING OF WIRE BUNDLES ON ALL FUTURE UNITS WILL BE WATCHED MORE CLOSELY TO ASSURE AGAINST A RECURRENCE OF THIS TYPE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER, INSTRUMENTATION ERS	SLV-99-24-4949-F TRANSDUCER, INSTRUMENTATION	FAR 68-01003-31	53-01 650205	ETR	YES NO	991626 991627
FAILURE MODE-CONTAMINATION. TRANSDUCER OUTPUT WAS INTERMITTENT DUE TO A LARGE QUANTITY OF PLASTIC-LIKE PARTICLES IN						

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SERIAL DYNAMICS
COMPUTER DIVISION

DIFFICULTIES REVISION-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	517 DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PR1 OFT	VENDOR NAME VENDOR PART NO	
THE SAMPLING OIL. THE PARTICLES WERE BETWEEN THE WIPER AND THE MANDREL AND CAUSED THE ERRATIC OUTPUT.							092076
CORRECTIVE ACTION-VENDOR IS INITIATING NEW IMPROVED CLEANING PROCEDURES TO PREVENT RECURRENCE OF THIS PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR POTENTIOMETER ERS	N2-A9-24-4929F	PAR 27-12762-613	2990 650203	FACTORY	YES NO		092719
FAILURE MODE-OUT OF TOLERANCE. TELEMETRY FAILED WHEN THE MEASUREMENT INDICATING SUSTAINER ENGINE YAW POSITION WAS R EADING 50 PERCENT INFORMATION BANDWIDTH WHEREAS 100 PERCENT WAS EXPECTED AND 0 PERCENT WHEN 50 PERCENT WAS EXPECTED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A DEFECTIVE FREQUENCY-AJUST POTENTIOMETER, R-10, IN THE CHANNEL 4 SUBCARRI ER OSCILLATOR.							
CORRECTIVE ACTION-NONE. EXACT CAUSE OF FAILURE NOT DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	09-4110	UTP-PET 7-01731-5	650203	GOC	YES BOURNAS NO	71724-0-10-753	092214
FAILURE MODE-LEAK-EXTERNAL. SILICONE OIL LEAKED THROUGH THE POORLY SOLDERED JUNCTION OF THE CASE AND THE ELECTRICAL CONNECTOR. IT WAS NOT POSSIBLE TO DETERMINE IF THE DAMAGE OCCURRED BEFORE OR AFTER IT WAS RECEIVED BY GOC. (B/M 412 1973)							
CORRECTIVE ACTION-THE TRANSDUCER WAS REJECTED ON AN I.R., AND ANOTHER ARTICLE WAS SELECTED FOR THE PET.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC WIRING ERS	N2-A9-24-4948-F	PAR 27-12762-613	2990 650129	FACTORY	YES NO		092619
FAILURE MODE-OUT OF TOLERANCE. TELEMETRY FAILED WHEN NO EXTERNAL 20 VOLT SIGNAL WAS OBTAINED. FAILURE WAS CONFIRMED AND WAS CAUSED BY WIRES 2 AND 21 BEING INTERCHANGED AT CONNECTOR J-34 DURING TELEMETRY ASSEMBLY.							
CORRECTIVE ACTION-RECOMMENDED PRODUCTION TEST EQUIPMENT BE CHANGED TO TEST ALL CIRCUITRY WITHIN THE TELEMETRY INCLU DING THE RF MONITOR CIRCUIT.							

GENERAL DYNAMICS
CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER EAS	LY-AS-24-4984-F LY-AS-24-4984-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER EAS	FAR 7-01720-8	284D 090128	FACTORY	YES NO	SERVONIC INSTRUMENTS K-75
CORRECTIVE ACTION-TESTING IS UNDERWAY, PER ECP 7681, TO STUDY THE FEASIBILITY OF REPLACING THE POTENTIOMETRIC PRESSURE TRANSDUCER WITH A VARIABLE RELUCTANCE TYPE. ALSO, EFFECTIVE JUNE 1963, THE VENDOR REMOVED ALL CLOTH RAGS FROM HIS ASSEMBLY AND TEST AREAS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER EAS	09-4187 TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER EAS	UTP-PET 27-01388-39	090127	60/C	YES NO	SERVONIC MO 2091-0909
FAILURE MODE-ERRATIC OPERATION. DURING Z AXIS VIBRATION, SPIKES GREATER THAN 3 PERCENT WERE EXPERIENCED AT 1800 CPS AND TO A LESSER EXTENT AT 750 CPS. S/N 4121800, PET LOT 4.						
CORRECTIVE ACTION-NONE. CAUSE OF THE REPORTED DISCREPANCY WAS OPERATION OF THE SHAKER FIXTURE COMBINATION AT ACCUMULATIVE 400 RMS LEVEL INSTEAD OF THE DESIRED 256 RMS LEVEL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER EAS	SLV-99-24-4934-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER EAS	FAR 69-01003-31	050126	FACTORY	YES NO	BOURNS MO 2007371703
FAILURE MODE-OUT OF TOLERANCE. THIS TRANSDUCER WAS REJECTED FOR A STATIC ERROR OF PLUS 1.33 PERCENT. MAXIMUM ALLOWABLE IS PLUS OR MINUS 1.0 PERCENT. THE UNIT WAS SHIPPED FROM THE VENDOR IN A MARGINAL CONDITION. THE DIFFERENCE BETWEEN THE CONVAIR AND THE VENDOR CALIBRATIONS IS PROBABLY EQUIPMENT ERROR.						
CORRECTIVE ACTION-A LONG-TERM STABILITY PARAGRAPH WAS ADDED TO THE SPECIFICATIONS TO PERMIT ACCEPTANCE OF UNITS WITH SPECIFIED DEVIATIONS FROM PREVIOUS, ACCEPTABLE CALIBRATIONS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR CAPACITOR EAS	SLV-99-24-4935-F TELEMETRY SET AND TRANSDUC DETECTOR CAPACITOR EAS	FAR 69-11118-1	7201 050126	FACTORY	YES NO	
FAILURE MODE-OUT OF TOLERANCE. FREQUENCY DETECTOR OUTPUT INDICATED 2.882 VOLTS DC WHEREAS 5.000 PLUS OR MINUS 0.003 VOLTS DC WAS SPECIFIED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE FAILURE OF THE C-2 CAPACITOR. THE C-2 CAPACITOR IS RATED AT 10 VOLTS, BUT IS SUBJECTED TO 10.8 VOLTS IN THE DETECTOR.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-ECP 3434, PARTS IMPROVEMENT, PROVIDES FOR REPLACEMENT OF EXISTING ELECTRONIC PARTS WITH SPECIAL QUALITY CAPACITORS, ETC. THE ECP WAS APPROVED BY THE CUSTOMER ON 20 JULY 1965, AND IS EFFECTIVE ON ARTICLES 69-1690-9 THROUGH 69 AND 69-1648-31 THROUGH 69.						091437
	INSTRUMENTATION-A/B FAR-SLV-99-24-4972-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS						090667
	FAILURE MODE-ELECTRICAL OPEN. DURING CALIBRATION THE TRANSDUCER WAS OUT OF BAND (LOW OUTPUT), DUE TO DRIFT IN RESISTANCE. A CARBON RESISTOR WAS FOUND TO BE OPEN. FOR A RELATED CASE SEE FAR-SLV-99-24-4983-F. CARBON RESISTORS WERE IMPROPERLY INSTALLED.						
	CORRECTIVE ACTION-VENDOR REPAIRING ALL FAILURES OF THIS TYPE AT OWN EXPENSE. VENDOR CORRECTIVE ACTION INCLUDED DISCIPLINARY LAYOFFS AND TRANSFERS.						
	INSTRUMENTATION-A/B FAR-SLV-99-24-4940-F TELEMETRY SET AND TRANSDUC ELECTRICAL FILTER CAPACITOR ERS						091843
	FAILURE MODE-OUT OF TOLERANCE. LIMITER FILTER FAILED DURING VIBRATION OF THE NEXT ASSEMBLY WHEN THE OUTPUT VOLTAGE OF CHANNEL 4 BECAME ERRATIC. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A POOR BOND BETWEEN THE ROLL OF FOIL FORMING THE CAPACITOR BODY AND ONE LEAD.						
	CORRECTIVE ACTION-RECEIVING INSPECTION IS NOW USING A PULL TEST ON CAPACITOR LEADS. ONLY LOW DISSIPATING FACTOR CAPACITORS ARE NOW PURCHASED.						
	INSTRUMENTATION-A/B FAR-SLV-99-24-4910-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS						091589
	FAILURE MODE-LEAK EXTERNAL. THE UNIT HAD A MINUS 1.54 PERCENT STATIC ERROR. 1.0 PERCENT IS ALLOWED. THIS FAILURE WAS CAUSED BY EXCESS PRESSURE IN THE EVACUATED CHAMBER. MOST LIKELY SOURCE OF THIS PRESSURE IS A LEAK IN THE BOURDON TUBE. HOWEVER THE LEAK WAS NOT FOUND.						
	CORRECTIVE ACTION-NONE.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTM	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	SLV-99-24-4980-F FAILED COMPONENT NAME	FAR 89-11110-1	7110 C30111	FACTORY YES	NO	892893
FAILURE MODE-OUT OF SPEC. THE DETECTOR FAILED EOP 330.720, PARAGRAPH 5.11. THE OUTPUT WAS 2.674 VOLTS DC WHEN IT SHOULD HAVE BEEN 2.500 PLUS OR MINUS 0.025 VOLTS DC. THE FAILURE WAS NOT CONFIRMED. WHEN THE DETECTOR WAS RECEIVED FOR FAILURE ANALYSIS, LEAD 4 WAS FOUND BROKEN OFF. IT COULD NOT BE LEARNED IF THE BROKEN LEAD CAUSED THE FAILURE REPORTED OR IF THE BREAK OCCURRED DURING SHIPMENT. HAD THE LEAD BEEN BROKEN AT THE TIME IT WAS REJECTED, A DIFFERENT FAILURE MODE SHOULD HAVE RESULTED.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	SLV-99-24-4921-F FAILED COMPONENT NAME	FAR 89-01003-13	650106	FACTORY YES	BOURNS NO	2004206304 891592
FAILURE MODE-OUT OF TOLERANCE. AN EXCESSIVE STATIC ERROR OF 1.04 PERCENT WAS REPORTED. THE TRANSDUCER WAS ACTUALLY WITHIN SPECIFICATION AFTER ACCOUNTING FOR THE CALIBRATION INSTRUMENT ERROR. THE UNIT WAS REJECTED BECAUSE OF A DISCREPANCY IN PART NUMBER IDENTIFICATION. MEAS FIP.						
CORRECTIVE ACTION-EFFECTIVE NOVEMBER 9, 1964, TRANSDUCERS ARE ONLY REJECTED FOR BEING OUT OF SPECIFICATIONS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	SLV-99-24-4955-F FAILED COMPONENT NAME	FAR 89-01003-31	7110 650105	FACTORY YES	BOURNS NO	2007371703 892859
FAILURE MODE-CONTAMINATION. THE PRESSURE TRANSDUCER WAS REJECTED WHEN AN INTERMITTENT OPEN CONDITION WAS OBSERVED. THE INTERMITTENT OPEN CIRCUIT WAS CAUSED BY DETERIORATION OF THE EPOXY ADHESIVE USED IN THE TRANSDUCER ASSEMBLY, AND BY MANY MIGRATING EPOXY PARTICLES BETWEEN THE WIPER CONTACT AND THE POTENTIOMETER COIL.						
CORRECTIVE ACTION-BOURNS HAS CHANGED THEIR ADHESIVE FROM B1608 R-314 TO GE 9322.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	SLV-99-24-4912-F FAILED COMPONENT NAME	FAR 89-11100-613	7109 650104	FACTORY YES	NO	892859
FAILURE MODE-OUT OF SPECIFICATION. MEASUREMENT FBSP INDICATED 1 PERCENT OF INFORMATION BANDWIDTH WHEREAS 13 PERCENT WAS EXPECTED. TYPE FAILURE WAS NOT CONFIRMED.						

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GENERAL DYNAMICS
CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE.							091925
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	LY-99-24-4980	PAR 7-01781-1	030104	FACTORY	YES	BOURNS NO 71784-0-0-782	090602
FAILURE MODE-STRUCTURAL. A POSITIVE ERROR OF 1.10 PERCENT WAS OBSERVED AT 300 PSIA. FAILURE WAS CAUSED BY ANNEALED AREAS IN THE BOURDON TUBE ADJACENT TO A CENTRAL WELD. THE BOURDON TUBE BECAME ANNEALED DURING WELDING BECAUSE NO HEAT SHIELDING WAS USED.							
CORRECTIVE ACTION-VENDOR WILL USE SUITABLE HEAT SHIELDS WHENEVER WELDING IS DONE ON BOURDON TUBES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER-ELECTRONIC TUBE ERS	A-99-24-4778-P	PAR 27-13317-1	04-08-03	FACTORY	YES	RATHEON NO	095033
FAILURE MODE-OUT OF TOLERANCE. OUT PUT POWER WAS 5.5 WATTS, WHEREAS THE MINIMUM POWER ACCEPTABLE IS 7.0 WATTS. FAILURE WAS CAUSED BY A REDUCTION IN OUTPUT POWER FROM THE POWER AMPLIFIER. REDUCTION IN OUTPUT POWER WAS CAUSED BY A SHORT IN TUBE CHARACTERISTICS. PREVIOUS FAILURE ANALYSIS HAS SHOWN RATHEON CR758 TUBES USED IN THIS AMPLIFIER ARE OPERATED ABOVE THEIR MANUFACTURERS RATING.							
CORRECTIVE ACTION-THE MANUFACTURER OF THE POWER AMPLIFIER IS CONDUCTING TESTS TO DISCOVER IF THE OVERHEATING OF THE TUBE IS CAUSING THE FAILURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC EVENTS SIGNAL MODULE-WIRING ERS	A-99-24-4769-P	PAR 27-12374-803	04-0814	FACTORY	YES	NO	094200
FAILURE MODE-ELECTRICAL SHORT. POTENTIOMETER R-3 COULD NOT BE ADJUSTED FOR AN OUTPUT READING OF 0.000 PLUS OR MINUS 0.010 VOLT DC. THE MINIMUM OUTPUT WAS 0.257 VOLT DC. FAILURE WAS CAUSED BY A SHORT CIRCUIT BETWEEN TERMINAL 7 OF TRANSFORMER T-1 AND THE LEAD OF RESISTOR R-12.							
CORRECTIVE ACTION-THE RESPONSIBLE DESIGN GROUP WAS NOTIFIED OF THE FAILURE AND ITS CAUSE. THEY WERE ASKED TO INVESTIGATE POSSIBLE PACKAGING ADJUSTMENTS TO ALLEVIATE THE CLOSE COMPRESSION OF THE COMPONENTS WITHIN THE UNIT.							

GENERAL DYNAMICS
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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIG DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER BOARD ERS	A-99-24-4488-C TELEMETRY SET AND TRANSDUCER BOARD	PAR 87-18308-3	84-01-27	FACTORY	YES	BENDIX	892830
FAILURE MODE-OUT OF TOLERANCE. SPEED WAS 25.0RPM, WHEREAS 30.0RPM PLUS OR MINUS 3 PERCENT IS REQUIRED. FAILURE ANALYSIS OF THE COMPUTATION WAS LIMITED BY 8LV RELIABILITY CONTROL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER BOARD ERS	8LV-99-24-4903-F TELEMETRY SET AND TRANSDUCER BOARD	PAR 89-11118-1	2940	FACTORY	YES		893447
FAILURE MODE-SHORT, ELECTRICAL. OUTPUT FROM THESE 3 DETECTORS WAS BELOW SPECIFIED LIMITS. FAILURE CAUSED BY SHORTED C-2 CAPACITORS. SHORT CAUSED BY 15 TO 17.5 VDC BEING APPLIED TO 10 VOLT CAPACITOR.							
CORRECTIVE ACTION-ECP 3434 APPROVED WHICH PROVIDED FOR REPLACEMENT OF EXISTING PARTS WITH SPECIAL QUALITY PARTS IN ELECTRONIC SYSTEMS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER BOARD ERS	8LV-99-24-4948-F TELEMETRY SET AND TRANSDUCER BOARD	PAR 89-01003-31	841226	FACTORY	YES	BURNS MC 2007371707	892074
FAILURE MODE-INTERNAL LEAK. TRANSDUCER HAD A STATIC ERROR OF -3.8 PERCENT WHEN PLUS OR MINUS 1.0 PERCENT IS ALLOWED. THE FAILURE WAS ATTRIBUTED TO A POROUS BRAZE JOINT ON THE BOURDON TUBE; ALLOWING SYSTEM PRESSURE TO LEAK INTO THE TRANSDUCER CASE. THIS RESULTED IN AN INCREASE IN THE TRANSDUCER REFERENCE PRESSURE, CAUSING THE NEGATIVE SHIFT.							
CORRECTIVE ACTION-REQUESTED VENDOR INVESTIGATE ITS WELDING AND BRAZING TECHNIQUES AND LEAK TESTING PROCEDURES TO ASSURE THERE ARE NO LEAKS IN THE BOURDON TUBES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER BOARD ERS	8LV-99-24-4920-F TELEMETRY SET AND TRANSDUCER BOARD	PAR 89-11118-1	841226		YES		891930
FAILURE MODE-OUT OF TOLERANCE. FREQUENCY DETECTOR FAILED WHEN THERE WAS NO OUTPUT. FAILURE WAS CONFIRMED AND ATTRIBUTED TO TERMINAL 9 OF PRINTED CIRCUIT BOARD 89-11109-7 NOT BEING PLATED THROUGH.							
CORRECTIVE ACTION-RECOMMENDED QUALITY CONTROL BE INCREASED IN THE MANUFACTURING DEPARTMENT.							

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GENERAL DYNAMICS
CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	8LV-90-24-4924 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 87-01892-91	7104 641228	WTR	YES NO	YES MIAMCO
FAILURE MODE-STRUCTURAL. OUTPUT READ 110 PERCENT WITH 0 PSID APPLIED. OUTPUT SHOULD HAVE READ 0 PERCENT. FAILURE WAS CAUSED BY A BROKEN WIRE BETWEEN PINS 8 AND 6 OF TRANSFORMER T-1. THE BREAK WAS NOT CAUSED BY OVER-CURRENT.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	60A-AP285-002/61-601-00-111 TRANSMITTER	FLIGHT	111F 641222	WTR 302.2	YES NO	YES
FAILURE MODE-OUT OF SPECIFICATION. SIGNAL STRENGTH FROM THE TIME TRANSDUCER TELEMETRY TRANSMITTER DECREASED UNTIL THRESHOLD WAS REACHED NEAR SUSTAINER ENGINE CUTOFF.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN. NO PROBLEM EXISTED WITH OTHER SIMILAR SYSTEMS, SO THE PROBLEM APPEARS TO BE PECULIAR TO THE TRANSMITTER ABOARD MISSILE 111F.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ACU83-001-31/FC-CO-01-0008-007 OSCILLATOR	COMPOSITE-FACTORY 27-11541-939	204D 641218		YES NO	YES BENDIX
FAILURE MODE-FAIL DURING OPERATION-THE OSCILLATOR OF CHANNEL 8 DISPLAYED SHIFTS UP TO 8 PCT FBW THROUGHOUT THE TEST. REF IN D52015.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. SHIFTING OSCILLATOR FREQUENCY WOULD CAUSE ERRONEOUS ANALOG SIGNALS TO BE TRANSMITTED.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED.						
CORRECTIVE ACTION-THE TRANSMITTER WAS REPLACED. SYSTEM AND COMPOSITE RETESTING WAS PERFORMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	8LV-99-24-4906-F PRESSURE TRANSDUCER	FAR 89-01003-31	641817		YES NO	YES BOURNS NO 8007371703
FAILURE MODE-CONTAMINATION. THE TRANSDUCER HAD A DISCONTINUITY. THE FAILURE WAS NOT CONFIRMED; HOWEVER, A CONTAMINATION FIBER WAS FOUND ON THE MANORREL. PLASTIC-LIKE AND FIBROUS CONTAMINANTS WERE FOUND INSIDE THE CASE. THE PLASTIC-LIKE PARTICLES ARE APPARENTLY DUE TO DETEIORATION OF THE EPOXY ADHESIVE.						

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1963

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIS	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-L'VOXY ADHESIVE WAS CHANGED BY THE VENDOR. VENDOR PERSONNEL WERE AGAIN REMINDED OF NECESSITY FOR 7 THOROUGHLY CLEANING UNITS.						091887
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SLV-99-24-4892-F PRESSURE TRANSDUCER	FAR 69-01003-31	941217	FACTORY	YES	BURNS MO 2007371703	091882
FAILURE MODE-LEAK-EXTERNAL. THE STATIC ERROR BAND OF THIS TRANSDUCER WAS -5.79 PERCENT AS COMPARED TO THE SPECIFICATION OF PLUS OR MINUS 1 PERCENT. THIS WAS DUE TO PRESSURE ENTRAPPED IN THE CASE DUE TO A LEAK IN THE BOURDCOM TUBE.							
CORRECTIVE ACTION-LEAK CHECK METHOD CHANGED BY THE VENDOR TO REQUIRE HELIUM LEAK CHECK WITH PROOF PRESSURE AFTER JOINTS HAVE BEEN STRESSED BY TUBE CYCLING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SLV-99-24-4892-F PRESSURE TRANSDUCER	FAR 69-01003-19	641216	FACTORY	YES	BURNS MO 2004206305	092860
FAILURE MODE-INTERNAL LEAK. TWO ABSOLUTE-PRESSURE TRANSDUCERS WERE REJECTED WHEN THEY HAD MINUS 1.74 PERCENT AND MINUS 1.69 PERCENT STATIC ERROR RESPECTIVELY. SPECIFICATIONS ALLOW ONLY PLUS OR MINUS 1.0 PERCENT STATIC ERROR. BOTH FAILURES ARE ATTRIBUTED TO A LOSS OF ABSOLUTE REFERENCE PRESSURE WITHIN THE TRANSDUCER. THE SOURCE OF LEAKAGE OF ONE TRANSDUCER WAS TRACED TO THE BELLOW AREA, BUT THE EXACT CAUSE OF FAILURE COULD NOT BE PINPOINTED. THE SOURCE OF LEAKAGE OF THE SECOND TRANSDUCER WAS TRACED TO THE CASE WELD AREA, AND IS ATTRIBUTED TO INCLUSIONS IN THE WELD JOINT ALLOWING A TINY LEAK PATH. THE INCLUSIONS COULD NOT BE IDENTIFIED.							
CORRECTIVE ACTION-OFFSITE 60/C PROCUREMENT INSPECTION HAS BEEN DELETED FROM ALL TRANSDUCER PURCHASE ORDERS. EFFECTIVE 22 APRIL 1963 ALL TRANSDUCERS ARE TESTED BY 60/C RECEIVING INSPECTION OR 60/C STANDARDS LABORATORY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER ERS	SLV-99-24-4897-F DIFFERENTIAL AMPLIFIER	FAR 69-01120	7109 641215	FACTORY	YES NO		093547
FAILURE MODE-OUT OF SPECIFICATION. INTERACTION FROM CHANNEL 11 SEGMENT 31 CAUSING A SLOPING OF SEGMENT 33, FAILURE CAUSED BY SLOW OVERLOAD RECOVERY TIME OF DIFFERENTIAL AMPLIFIER. THIS CONSIDERED A DESIGN DEFICIENCY.							
CORRECTIVE ACTION-ALL AMPLIFIERS IN STOCK TESTED FOR COMPLIANCE WITH OVERLOAD RECOVERY TIME REQUIREMENT WITH UNSATISFACTORY UNITS RETURNED TO VENDOR.							

18 JUN 1986

GENERAL DYNAMICS
CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	GIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER POWER SUPPLY-INDUCTOR CRS	LV-88-24-4884-F PAR	88-13340	8040 641813	FACTORY	YES NO	
FAILURE MODE-OPEN-ELECTRICAL. ALL OUTPUTS MEASURED 0.0 VOLTS. FAILURE DUE TO BROKEN LEAD TO L-1 INDUCTOR. BROKEN LEAD RESULTED FROM A FATIGUE BREAK DUE TO VIBRATION.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER CRS	88-4110 UTP-PET	7-01751-5	641816	60C	YES BOURS NO	71724-0-10-732
FAILURE MODE-OUT OF SPECIFICATION. THE UNIT FAILED THE Z-AXIS VIBRATION TEST. SPIRES HAVING A MAGNITUDE OF 3 PERCENT OF FULL SCALE OUTPUT WERE OBSERVED DURING THAT PORTION OF THE SINEP BETWEEN 700 CPS AND 900 CPS. THE MAXIMUM VIBRATION ERROR BAND TOLERANCE IS PLUS OR MINUS 1.5 PERCENT.						
CORRECTIVE ACTION-PET LOT 27 WAS REJECTED. VCAR, DATED 28 DECEMBER 1984, WAS FORWARDED TO BOURS DELINEATING THE FAILURE. IT WAS SUGGESTED THAT ADEQUATE MANUFACTURING CONTROL AND INSPECTION SHOULD BE USED TO PRECLUDE THIS TYPE OF FAILURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER CRS	88-4110 PAR	88-01003-33	641814	FACTORY	YES BOURS NO	2007371703
FAILURE MODE-OUT OF TOLERANCE. AN EXCESSIVE STATIC ERROR (0.87 PERCENT BEYOND ALLOWABLE) WAS REPORTED. NO CAUSE OF FAILURE WAS NOTED DURING FAILURE ANALYSIS. FAILURE IS ATTRIBUTED TO LACK OF TEMPERATURE CYCLING BECAUSE OF SIMILARITY TO PRODUCTION EVALUATION TEST FAILURES.						
CORRECTIVE ACTION-THE VENDOR INCORPORATED A TEMPERATURE-CYCLING AND HIGH-TEMPERATURE STABILIZATION PROCESS PRIOR TO THIS FAILURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER DETECTOR CAPACITOR CRS	88-4110 PAR	88-11116-1	8100	FACTORY	YES NO	
FAILURE MODE-OUT OF TOLERANCE. FREQUENCY DETECTOR OUTPUT VOLTAGE WAS 1.318 VOLTS DC WHEREAS 1.280 PLUS OR MINUS 0.0 50 VOLTS DC WAS SPECIFIED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE LEAKY C-B CAPACITOR. THE C-B CAPACITOR IS RATED AT 10 VOLTS, BUT IS SUBJECTED TO 10.8 VOLTS IN THE DETECTOR.						

GENERAL DYNAMICS
CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-ECF 3434, PARTS IMPROVEMENT, PROVIDED FOR REPLACEMENT OF EXISTING ELECTRONIC PARTS WITH SPECIAL QUALITY CAPACITORS, ETC. THE ECF WAS APPROVED BY THE CUSTOMER ON 30 JULY 1989, AND IS EFFECTIVE ON ARTICLES 89-1890-5 1 THROUGH 68 AND 89-1848-81 THROUGH 89.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-WIRING ERS	N2-89-24-4927-F TRANSDUC OSCILLATOR-WIRING	FAR 27-01807-119	841212	FACTORY	YES	BENDIX-PACIFIC MO 3131133-106
FAILURE MODE-OUT OF TOLERANCE. THE OSCILLATOR EXHIBITED ERRATIC OPERATION DURING VIBRATION OF THE TELEMETER. FAILURE WAS CONFIRMED AND ATTRIBUTED TO TWO IMPROPERLY SOLDERED CONNECTORS CONNECTING RESISTORS R1 AND R7 TO CIRCUIT BOARD LAMPS.						
CORRECTIVE ACTION-REQUESTED VENDOR REINSTRUCT PERSONNEL IN PROPER SOLDERING TECHNIQUES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SLY-99-24-4893 PRESSURE TRANSDUCER	FAR 89-01003-29	841211	FACTORY	YES	BURNS MO 2007371702
FAILURE MODE-LEAK-EXTERNAL. TRANSDUCER OUTPUT HAD A STATIC ERROR BAND OF MINUS 3.05 PERCENT. WHEREAS, SPECIFICATION 2 ALLOW A PLUS OR MINUS 1.6 PERCENT STATIC ERROR BAND. FAILURE OF THE PRESSURE TRANSDUCER IS ATTRIBUTED TO A POROUS BRAZED WELD AT THE WIPER-END BOURDON TUBE JOINT, ALLOWING PRESSURIZED GAS TO LEAK INTO THE TRANSDUCER CASE, AND RESULTING IN A LOSS OF REFERENCE PRESSURE.						
CORRECTIVE ACTION-CONVAIR INITIATED CORRECTIVE ACTION BY ISSUING RAR SLY-99-24-8458 TO DETERMINE THE EFFECT OF LEAKAGE PROBLEMS ON PRESENT STOCK.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC WIRING ERS	LY-A9-24-4878-F WIRING	FAR 89-13868-937	2040	FACTORY	YES	NO
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 13 DISPLAYED A 200 CPS 2.5 G AMPLITUDE SIGNAL WHEN STRAIGHT DC SIGNAL IS EXPECTED. FAILURE CAUSED BY WIRE REVERSAL DURING PACKAGE BUILDUP NOT DETECTED DURING CHECKOUT.						
CORRECTIVE ACTION-INSPECTION PERSONNEL CAUTIONED TO CHECK WIRE ROUTING TO ENSURE CONNECTIONS ARE IN ACCORD WITH APPLICABLE BLUEPRINTS.						

GENERAL DYNAMICS
CONVAIR DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI DIF TIME	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ABSOLUTE PRESSURE TRANSDUCER ERS	SLV-99-24-4000	FAR 89-01003-58	641808	FACTORY	YES	BOURNS NO 8057371708
<p>FAILURE MODE-STRUCTURAL. AN EXCESSIVE STATIC ERROR BAND OF -4.08 PERCENT WAS RECORDED. WHEREAS, THE ALLOWABLE STATIC ERROR IS PLUS OR MINUS 1.0 PERCENT. THE FAILURE WAS CAUSED BY A ONE WAY LEAK BETWEEN THE BOURDON TUBE AND THE INTERNAL WALLS OF THE TRANSDUCER. A LEAK PATH WAS FOUND AT ONE END OF THE BOURDON TUBE. THE LEAK PATH RESULTED FROM LACK OF FUSION BETWEEN THE WELD MATERIAL AND THE BOURDON TUBE WALL.</p>						
<p>CORRECTIVE ACTION-YEAR 7218-85 FROM THE VENDOR STATES LEAK CHECK METHOD CHANGED TO REQUIRE HELIUM LEAK CHECK WITH 1 000 PSI (OR PROOF PRESSURE) AFTER JOINTS HAVE BEEN STRESSED BY TUBE CYCLING.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER DETECTOR CAPACITOR ERS	SLV-99-24-4000-F	FAR 89-11118-1	641804	FACTORY	YES	NO
<p>FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE WAS 1.806 VDC WHEN 1.830 PLUS OR MINUS 0.050 VDC WAS EXPECTED. FAILURE CAUSED BY HIGH VOLTAGE ACROSS CAPACITOR C-8 CAUSING THE TANTALUM SLUG TO BREAKDOWN AND LEAK.</p>						
<p>CORRECTIVE ACTION-ECF APPROVED WHICH REPLACES EXISTING ELECTRONIC PARTS WITH SPECIAL QUALITY PARTS IN ELECTRONIC BY ITEMS.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER DISCONNECT- STAGING ERS	60A-BK764-058	FLIGHT	7105	PALCE-4	YES	NO
<p>FAILURE MODE-PREATURE OPERATION. THE INSTRUMENTATION STAGING DISCONNECT PREMATURELY SEPARATED AT MINUS 1.1 SECONDS.</p>						
<p>SYSTEM EFFECT-OPERATION STOPS PREMATURELY. LOSS OF TEN ASSOCIATED MEASUREMENTS. NINE OF THESE WERE LANDLINE.</p>						
<p>VEHICLE EFFECT-NONE.</p>						
<p>CORRECTIVE ACTION-FOUR PROCEDURES CONCERNED WITH CHECKOUT OF THE PROPER MATING OF THE PLUG WERE MODIFIED TO INCLUDE A PULL TEST ON THE PLUG BODY INSTEAD OF ONLY THE LANTARD.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER AMPLIFIER DIODE ERS	SLV-99-24-4910-F	FAR 89-01180-6	641803	FACTORY	YES	NAYBERRY NO 180-18
<p>FAILURE MODE-ELECTRICAL SHORT. DIFFERENTIAL AMPLIFIER FAILED WHEN THE GAIN WAS UNSTABLE. FAILURE WAS CONFIRMED. 641 IN DRIFT OF CHANNEL A COULD HAVE BEEN CAUSED BY DEFECTIVE SOLDER CONNECTIONS BETWEEN TWO LEADS OF TRANSFORMER T-4 AND</p>						

GENERAL DYNAMICS
CONVAIR E 110M

10 JUN 1960

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	TEST/REPORT NUMBER	DATE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	DIP DATA SOURCE	DATE	TIME	OTM	VENDOR PART NO
<p>THEIR RESPECTIVE CIRCUIT BOARD LAMPS. THIS ALSO CAUSED SHORTING OF DIODE VR-2 USED TO CONTROL BIAS VOLTAGE FOR THE CHANNEL A OSCILLATOR. THE SHORTED DIODE CAUSED THE FAILURE OF CHANNEL B BECAUSE THE OSCILLATORS WERE ELECTRICALLY TIED TOGETHER WITH A SOLID BUSH WIRE.</p>						
<p>CORRECTIVE ACTION-REQUESTED DESIGN GROUP TAKE ACTION TO ASSURE DIFFERENTIAL AMPLIFIERS ARE MANUFACTURED COMPLYING TO THE SPECIFICATION CONTROL DRAWING BY HAVING THE BUSH WIRE REMOVED FROM ALL DIFFERENTIAL AMPLIFIERS, AND TO REQUEST AN IMPROVEMENT IN AND TO REVIEW DRIFT-TEST PROCEDURES. ALSO REQUESTED AMPLIFIER MANUFACTURER TAKE ACTION TO PREVENT RECURRENCE OF FAILURES DUE TO IMPROPER SOLDERING.</p>						
INSTRUMENTATION-A/B	SLV-88-24-4841-F	FAR	71-10	FACTORY	YES	808072
TELEMETRY SET AND TRANSDUCER	TRANSDUCER	88-01003-38	841203		NO	8007371707
<p>FAILURE MODE-OUT OF TOLERANCE. TWO TRANSDUCERS FOR MEASUREMENT HISOP AND MSP EXHIBITED HIGHER RESISTANCE READINGS THAN EXPECTED DURING END-TO-END CHECKS. FAILURE WERE NOT CONFIRMED. IT WAS CONCLUDED THE TEST SET WAS MISREAD WHEN THESE TRANSDUCERS WERE REJECTED.</p>						
<p>CORRECTIVE ACTION-FAILURES NOT CONFIRMED. RECOMMENDED APPROPRIATE PERSONNEL VERIFY TEST EQUIPMENT AND RECHECK THE TRANSDUCERS.</p>						
INSTRUMENTATION-A/B	SLV-88-24-4819-F	FAR	841203	FACTORY	YES	891391
TELEMETRY SET AND TRANSDUCER	PRESSURE TRANSDUCER	88-01003-13			NO	8004208304
<p>FAILURE MODE-LEAK. EXTERNAL THE TRANSDUCER EXHIBITED A MINUS 1.33 PERCENT STATIC ERROR. THE ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT. THE ERROR WAS DUE TO A LOSS OF REFERENCE PRESSURE IN THE CASE CAUSED BY A LEAK AT THE ELECTRICAL CONNECTOR SOLDER JOINT NEAR FIP</p>						
<p>CORRECTIVE ACTION-VENDOR PERSONNEL WERE NOTIFIED OF THEIR DEFICIENT WORKMANSHIP AND INSTRUCTED TO ELIMINATE THIS TYPE OF DISCREPANCY.</p>						
INSTRUMENTATION-A/B	LV-88-24-4804	FAR	841202	FACTORY	NO	890732
TELEMETRY SET AND TRANSDUCER	PRESSURE TRANSDUCER	87-01843-7			NO	401-A-10-75
<p>FAILURE MODE-STRUCTURAL. TRANSDUCER HAD A 36 PERCENT POSITIVE STATIC ERROR. HISTORICALLY, POSITIVE STATIC ERRORS IN LOW RANGE PSIA TRANSDUCERS ARE CAUSED BY OVERPRESSURIZATION, RESULTING IN STRETCHED BELLOW.</p>						
<p>CORRECTIVE ACTION-NONE.</p>						

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15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE TIME OF DAY	PRI OTH	VEHICLE NAME VEHICLE PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	LV-99-84-4888 PRESSURE TRANSDUCER	FAR 87-01848-7	641808	FACTORY	NO BOUNDS NO 42011-0-100-78 2	000733
FAILURE MODE-STRUCTURAL. OUTPUT VOLTAGE WAS 7.5 VOLTS DC AT ALL INPUT PRESSURES FROM 0 TO 100 PSIA. FAILURE WAS ATTRIBUTED TO SEVERE OVER PRESSURIZATION, RESULTING IN STRETCHING THE BELLONIS, PUSHING THE BELLONIS STOP FROM THE HOUSING 9. PUSHING THE BELLONIS LINEAGE BALL FROM THE WIPER ARM SOCKET, AND JAMMING THE WIPER ARM AT THE RESISTANCE MANOUEL Y THREE-QUARTER POINT.						
CONNECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TLM CANISTER ERS	60A-AP264-069/AI-408-00-210 FLIGHT	2100 641801	WTR-A1	YES NO		01784
FAILURE MODE-OUT OF EXPECTED TEST VALUE. DATA FROM TELPAK NO. 1 WAS NOISY. CHANNELS A AND C ESPECIALLY SHOWED EXCESSIVE NOISE (WCT AND 100 OPCY DROP OUTS) BETWEEN 18 TO 99 SECONDS AND DURING LAST 70 SECONDS OF SUSTAINER PHASE.						
SYSTEM EFFECT-ERRATIC OPERATION. LOSS OF TELEMETRY DATA OCCURRED DURING THE MORE SEVERE DROPOUTS.						
VEHICLE EFFECT-NONE.						
CONNECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER - TELEMETRY ERS	CAPSANIZ-089/P6-LO-01-04C4 COUNTDOWN 87-01897-003	1480 641187	ETR-36A	YES BOUNDS NO		000550
FAILURE MODE-ERRATIC OPERATION. A081P FUEL TANK HEAD TRANSDUCER PRESSURE CONNECTIONS WERE REVERSED WHICH COULD HAVE CAUSED INTERNAL TRANSDUCER DAMAGE AND POSSIBLE PROPELLANT UTILIZATION FUEL MANOMETER CONTAMINATION.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-THE TRANSDUCER ULLAGE SENSING LINE WAS DISCONNECTED AND THE LINE AND TRANSDUCER WERE CAPPED DURING THE COUNTDOWN. AFTER THE TEST THE TRANSDUCER WAS REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	SLV-99-84-4902-F PRESSURE TRANSDUCER	FAR 89-01803-39	641187	FACTORY	YES BOUNDS NO	
FAILURE MODE-OUT OF TOLERANCE. AN EXCESSIVE STATIC ERROR OF 1.45 PERCENT WAS REPORTED.						

GENERAL ELECTRONICS
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18 JUN 1964

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTM	VENDOR NAME VENDOR PART NO	
							001500
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SLV-88-84-4817-P	PAR 7-81788-3	641187	FACTORY	YES	BOURNS NO 71788-0-18-788	001500
FAILURE MODE-OUT OF TOLERANCE THE APPARENT EXCESS STATIC ERROR WAS DUE TO THE INTERPRETATION OF THE SPECIFICATION C CONTROL DRAWING.							
CORRECTIVE ACTION-THE ERROR BAND WAS CLARIFIED BY REVISING NOTE 3.4 ON SPECIFICATION CONTROL DRAWING 7-81788. THIS WAS ACCOMPLISHED BY DRAWING CHANGE-C, RELEASED JULY 7, 1963.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	CT-89-243-3811-REVISED	PAR 87-81887-3	641123	FACTORY	YES	TRANSONICS NO	000600
FAILURE MODE-STRUCTURAL. TRANSDUCER INDICATED AN OPEN CIRCUIT CONDITION DURING TRANSDUCER RING-OUT CONTINUITY CHECK. INVESTIGATION REVEALED THE WIRE COIL WAS FRACTURED ON BOTH SIDES DUE TO REMOVAL BY PLYING UNDER THE EDGES WITH A PR OBING TOOL PRIOR TO REINSTALLATION.							
CORRE. FIVE ACTION-IMPROVED HANDLING METHODS RECOMMENDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	PAR-SLV-88-84-4871-P	PAR 7-81884-83	7108	FACTORY	YES	LEWIS NO 80386	000670
FAILURE MODE-STRUCTURAL. DURING FINAL CHECKOUT, AN OPEN CIRCUIT WAS DISCOVERED. THE TRANSDUCERS RESISTIVE ELEMENT H AD BEEN PUNCTURED AS THE RESULT OF MISHANDLING.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. PERSONNEL WERE INFORMED OF THE PROBLEM AND THE CONSEQUENCES OF MISHAND LING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR ERS	SLV-88-84-4814-P	PAR 89-11118-1	641123	FACTORY	YES	NO	
FAILURE MODE-OUT OF SPECIFICATION. FREQUENCY DETECTOR FAILED WHEN OUTPUT VOLTAGE WAS A MINUS 9.137 VOLT DC WHEREAS 9.888 PLUS OR MINUS 9.88 VOLT DC WAS SPECIFIED. FAILURE WAS CONFIRMED, HOWEVER, THE CAUSE WAS NOT DETERMINED.							

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18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE 81P	SITE TIME 81P	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE.							000010
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER CRS							000061
	SLV-99-84-4944	FAR	041129	FACTORY	YES	MIAMO	
	37-01882-99				NO		
FAILURE MODE-OUT OF SPECIFICATION. STATIC ERROR BAND WAS 1.08 PERCENT. FAILURE WAS COVINED BUT THE CAUSE OF FAILURE RE COULD NOT BE DETERMINED.							
CORRECTIVE ACTION-NONE.							000049
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-CRYSTAL RECTIFIER CRS							000049
	SLV-99-84-4891-F	FAR	041110	FACTORY	YES		
	80-11100-813				NO		
FAILURE MODE-OUT OF TOLERANCE. MEASUREMENTS ESIV, ESSV, ESS, AND ESSV INDICATED 98 PERCENT ISM WHEN 91.5 PERCENT IS W IS EXPECTED. FAILURE CAUSED BY CRYSTAL RECTIFIER (P/N 80-11107-3) OUTPUT BEING HIGH. CAUSE FOR HIGH OUTPUT NOT FOU ND.							
CORRECTIVE ACTION-NONE. EXACT CAUSE OF FAILURE COULD NOT BE DETERMINED.							001004
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER CRS							001004
	SLV-99-84-4899-F	FAR	041110	FACTORY	YES	BOURNS	
	80-01003-13				NO	8004808304	
FAILURE MODE-EXTERNAL LEAK. AN EXCESSIVE STATIC ERROR OF -1.43 PERCENT WAS REPORTED. THIS WAS DUE TO A SMALL LOSS O F CASE REFERENCE PRESSURE. THE LOCATION OF THE LEAK COULD NOT BE FOUND.							
CORRECTIVE ACTION-NONE.							001004
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER-POWER CRS							001004
	PR698179.2	UTP-BLT	041110	80/C	YES	DEMOLIN-PACIFIC	
	80-01008				NO		
FAILURE MODE-STRUCTURAL. DURING BLT X-AXIS TEMPERATURE VIBRATION TEST AT VIBRATION SINE INPUT OF 800CPS AND A TEMPE RATURE OF 8 DEGREES F, RF OUTPUT POWER DROPPED TO 8.0 WATTS CAUSED BY THE CAPACITORS BREAKING OFF MOUNTINGS IN POWER SUPPLY DUE TO EXTREME VIBRATION LEVELS ENCOUNTERED DURING BLT TESTING.							

GENERAL BT-4000
CONVAIR DIVISION

10 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI DIF TIME	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE. SINCE FAILURE OCCURRED DURING SLT TESTING AT ENVIRONMENT LEVELS BEYOND DESIGN LIMITS. NO DESIGN CHANGES CONTEMPLATED. DEPT 938-S COMMUNICATED TEST RESULTS TO VENDOR FOR CONSIDERATION FOR POSSIBLE DESIGN IMPROVEMENTS IN FUTURE PRODUCTION. REF. CTCN NO. 961-4-067.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	CT-49-846-3613	FAR SP-91998-91	1960 641116	FACTORY	YES	MIANCO NO 94193-13
FAILURE MODE-ELECTRICAL OPEN. FAILURE OF THE Y-1 TRANSFORMER DUE TO AN OPEN WINDING BETWEEN TERMINALS 5 AND 6 CAUSE D THE VOLTAGE OUTPUT OF THE TRANSDUCER TO BE OUT OF SPEC AT ZERO PSID.						
CORRECTIVE ACTION-VENDOR SHOULD INVESTIGATE TO INSURE NO OTHER DEFECTIVE TRANSFORMERS ARE INSTALLED IN LINE UNITS AND REQUEST NECESSARY PREVENTATIVE ACTION FROM TRANSFORMER MANUFACTURER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER - TRANSMITTER ERS	9842176-2	UTP-SLT 98-11100-901	641116	60/C	YES	BENDIX NO
FAILURE MODE - OUT OF SPECIFICATION - DURING Y-AXIS VIBRATION - VIBRATION TEST OUTPUT RF POWER DROPPED TO 0.0 WAT TS. FAILURE DUE TO THREE CAPACITORS BREAKING OFF MOUNTINGS IN TRANSMITTER POWER SUPPLY						
CORRECTIVE ACTION - NONE. FAILURES OCCURRED DURING SLT TESTING AT ENVIRONMENTAL LEVELS BEYOND DESIGN LIMITS. NO DESIGN CHANGES CONTEMPLATED. 60C COMMUNICATED TEST RESULTS TO VENDOR FOR CONSIDERATION FOR POSSIBLE DESIGN IMPROVEMENTS IN FUTURE PRODUCTION. REF. CTCN NO. 961-4-069.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER, POWER SUPPLY ERS	FR9842176-2	UTP-SLT 98-01008-3	641117	60/C	YES	BENDIX-PACIFIC NO
FAILURE MODE-STRUCTURAL. DURING SLT X-AXIS VIBRATION - TEMPERATURE TEST AT VIBRATION SINE, INPUT OF 200 CPS AND ROOM AMBIENT TEMPERATURE RF OUTPUT POWER DROPPED FROM 0.8 WATTS TO 0.2 WATTS. ABOVE CAUSED BY THREE CAPACITORS BREAKING OFF MOUNTINGS IN POWER SUPPLY DUE TO EXTREME VIBRATION LEVELS ENCOUNTERED DURING SLT TESTING.						
CORRECTIVE ACTION-NONE. FAILURE OCCURRED DURING SLT TESTING AT ENVIRONMENT LEVELS BEYOND DESIGN LIMITS. NO DESIGN CHANGES CONTEMPLATED. DEPT 938-S COMMUNICATED TEST RESULTS TO VENDOR FOR CONSIDERATION FOR POSSIBLE DESIGN IMPROVEMENTS IN FUTURE PRODUCTION. REF. CTCN NO. 961-4-069.						

GENERAL INVESTIGATIVE
DIVISION

OPTICIM TIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM WINDING			
SYSTEM	TEST/REPORT NUMBER	DIP DATA NO-MCE	VEHICLE DATE
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE
INSTRUMENTATION-A/B	0041117	00-111100-001	00-111100-001
TELEMETRY SET AND TRANSDUC TLM CANISTER-TRANSMITTER			
ERR			
<p>FAILURE MODE-OUT OF SPECIFICATION. DURING POST ACCELERATION PROOF CYCLE OUTPUT AT POWER DECREASED BELOW 7.0 WATTS & PEC. MINIMUM TO 6.0 WATTS DURING 8.0 HOUR OPERATING PERIOD. DURING X-AXIS SINE VIBRATION OUTPUT BY POWER DROPPED TO 6.0 WATTS. CAUSE OF FAILURES NOT DETERMINED.</p>			
<p>CORRECTIVE ACTION-NONE. FAILURES OCCURRED DURING ALT TESTING AT ENVIRONMENTAL LEVELS BEYOND DESIGN LIMITS. NO DESIGN CHANGES CONTEMPLATED GDC COMMUNICATED TEST RESULTS TO VENDOR FOR CONSIDERATION FOR POSSIBLE DESIGN IMPROVEMENTS IN FUTURE PRODUCTION REF CICH NO. 001-4-002.</p>			
INSTRUMENTATION-A/B	A-99-24-4900-F	FAR	041116
TELEMETRY SET AND TRANSDUC POWER SUPPLY-TRANSFORMER		00-13840-008	
ERR			
<p>FAILURE MODE-OUT OF SPECIFICATION. A READOUT OF 9.00 VDC WAS RECORDED WHEN 8.20 PLUS OR MINUS 0.164 VDC WAS EXPECTED. THIS FAILURE NOT CONFIRMED. HOWEVER, BOTH TRANSFORMERS 40C P/N 99-01133-1 FOUND TO BE OUT OF SPEC WINDING 10-11 0 F -87 UNIT FOUND 1 TURN SHORT. FEEDBACK WINDING 1-2 OF -88 UNIT FOUND REVERSED. BOTH FAILURES ATTRIBUTED TO INADEQUATE QUALITY CONTROL BY VENDOR RECEIVING INSPECTION. PROCEDURES ALSO FOUND INADEQUATE.</p>			
<p>CORRECTIVE ACTION-EXISTING STOCK PURGED AND RETESTED. RECEIVING INSPECTION TEST PROCEDURE REVISED.</p>			
INSTRUMENTATION-A/B	SLV-89-24-4923-F	FAR	041116
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER		00-01003-39	
ERR			
<p>FAILURE MODE-CONTAMINATION. THE TRANSDUCER WAS REJECTED FOR AN ERRATIC OUTPUT. IT WAS FOUND THAT THE ENTIRE TRANSDUCER ASSEMBLY WAS CLUTTERED WITH PLASTIC-LIKE PARTICLES. THIS IS APPARENTLY THE EPOXY ADHESIVE DETERIORATING IN THE SILICONE OIL.</p>			
<p>CORRECTIVE ACTION-THE VENDOR CHANGED THE EPOXY ADHESIVE FROM 8163 R-314 TO 60322.</p>			
INSTRUMENTATION-A/B	SLV-89-24-4922-F	FAR	041116
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER		00-01003-39	
ERR			
<p>FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER WAS REJECTED FOR OUTPUT SPIKING DURING A TELEMETRY SYSTEM TEST. INEA SURVEILLANCE (MSP).</p>			

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GENERAL DYNAMICS
COMPARIS DIVISION

10 JUN 1988

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
						001593
	CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. THIS TRANSDUCER WILL BE REPLACED WITH A NEW ONE (ECP 7871-P-CB).					
						000783
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	LV-99-24-4874 FAR 60-01008-3	041116 FACTORY	YES SERVOMIC NO 9041-0103			
	FAILURE MODE-OUT OF TOLERANCE. THE STARTING FORCE WAS MORE THAN THE REQUIRED 18 INCH OUNCES. FAILURE WAS CAUSED BY INADEQUATE LUBRICATION ON THE O-RINGS.					
	CORRECTIVE ACTION-ALL TRANSDUCERS WILL BE LUBRICATED WITH A 90 PERCENT DC810 4 PERCENT MOLY-01-SULFIDE MIXTURE ON THE O-RINGS AND SHAFT.					001597
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	LV-99-24-4926-F FAR 7-01731-3	041116 FACTORY	YES BOURNS NO			
	FAILURE MODE-STRUCTURAL. THE TRANSDUCER REPORTEDLY HAD A STATIC ERROR BAND OF 1.30 PERCENT. SPECIFICATIONS ALLOW PLUS OR MINUS 0.75 PERCENT. FAILURE WAS CAUSED BY SOFT AREAS IN THE BOURDON TUBE, RESULTING FROM REMELTING AFTER THE BOURDON TUBE HAD BEEN MOUNTED.					
	CORRECTIVE ACTION-VENDOR PERSONNEL WERE NOTIFIED THAT WHEN EVER WELDING IS DONE WITH THE BOURDON TUBE INSTALLED, A SUITABLE HEAT SHIELD MUST BE USED.					001593
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER/0 ERS	LV-99-24-4920-F FAR 9006 PSIA 7-01731-3	041116 FACTORY	YES BOURNS NO			
	FAILURE MODE-CONTAMINATION. THE TRANSDUCER EXHIBITED AN ERRATIC OUTPUT AND WOULD NOT STABILIZE BETWEEN 5 AND 7 VOLT 8 DC (1750 TO 2450 PSIA). THIS WAS CAUSED BY A DEPOSIT ON THE RESISTIVE ELEMENT AND BY LOW CONTACT FORCE OF THE WIPE RS.					
	CORRECTIVE ACTION-WIPER ARM TENSION SPECIFICATION WAS INCREASED AND THE ELEMENT CLEANING PROCESS WAS CHANGED BY THE VENDOR.					

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	VEHICLE	DATE	TIME	SITE	POI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	DIF DATA SOURCE	PART NUMBER	DATE	TIME	OTN	VENDOR PART NO
INSTRUMENTATION-A/B	PR37-3046	UOP-PET	641113	00/C	YES	APPLIED COMPO	NO ENTS INC
TELEMETRY SET AND TRANSDUC BAND PASS FILTER WHET	7-01788-7						AC13030-7
ERR							000003
FAILURE MODE-ELECTRICAL OPEN. DURING INITIAL SATISFACTORY PERFORMANCE TEST OF PET, THERE WAS NO CONTINUITY BETWEEN PINS A AND C, CAUSED BY VENDOR LEAVING PIN C OPEN. VE MANUFACTURED FILTER WITH A NONMETAL CASE RESULTING IN NO C ARE GROUND EXISTING.							
CORRECTIVE ACTION-APPLIED COMPONENTS INC. WAS INFORMED OF THE CONDITION AND CONSEQUENTLY JUMPED PINS A AND C IN C COMPLIANCE WITH DRAWING 7-01750 FOR SUBSEQUENT PRODUCTION. REF. FPR P-9020-CT; VTCN APPENDIX A PAGE 1 TO PET REPORT D/R 27-3046.							
INSTRUMENTATION-A/B	SLV-99-24-4913	FAR	641112	FACTORY	YES	MIANCO	NO 24103-9
TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER	27-01855-49						000004
ERR							
FAILURE MODE-CONTAMINATION. STATIC ERROR BAND WAS -2.04. MAXIMUM ALLOWABLE IS 1 PERCENT. THE FAILURE WAS CAUSED BY A FIBER IN THE ARMATURE PATH WHICH IMPEDED ITS MOVEMENT.							
CORRECTIVE ACTION-TO INSURE PARTICLES THAT ARE NOT LEFT IN THE TRANSDUCER, A TRIPLE FLUSH WAS INCORPORATED AUGUST 1, 1964 IN THE MANUFACTURING PROCEDURE.							
INSTRUMENTATION-A/B	LV-99-24-4937-F	FAR	641111	FACTORY	YES	APPLIED COMPO	NO ENTS
TELEMETRY SET AND TRANSDUC BAND PASS FILTER	27-01855-1						AC13030-7
ERR							000019
FAILURE MODE-OUT OF SPECIFICATION. OUTPUT AT 1032 CPS WAS 0.120 VOLT RMS, WHEREAS REQUIRED OUTPUT IS 0.070 TO 0.119 VOLT RMS. THIS WAS APPARENTLY DUE TO INCORRECT ADJUSTMENT. N/A 27-12207 FILTER ASSEMBLY.							
CORRECTIVE ACTION-THE REPORTED FAILURE WAS NOT CONFIRMED. IT WAS RECOMMENDED THAT FACTORY PERSONNEL BE CAUTIONED TO USE THE PEAK RESPONSE WHEN ADJUSTING THESE FILTERS.							
INSTRUMENTATION-A/B	SLV-99-24-4929-F	FAR	641111	STAND. L	YES	BOURNS	NO
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	69-01005-31						AB.
ERR							000019
FAILURE MODE-CONTAMINATION. THE TRANSDUCER, WAS REJECTED BECAUSE OF AN EXCESSIVE STATIC ERROR BAND. THIS WAS CAUSED BY EPOXY PARTICLES ON THE BALL BEARINGS OF THE BOURNOM TUBE MOUNT. THESE WERE APPARENTLY DUE TO DETERIORATION OF THE EPOXY ADHESIVE IN THE SILICONE OIL.							

GENERAL, MICS
CONTAINER DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SIZE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							001999
	CORRECTIVE ACTION-THE VENDOR CHANGED THE EPOXY ADHESIVE FROM 81669 R-314 TO 8E9328.						001999
	INSTRUMENTATION-A/B 60/AA603-001-38/PC-CO-88-4878-801 COMPOSITE-FACTORY 041110 YES TELEMETRY SET AND TRANSDUC TLM CANISTER-CRYSTAL RECTIFIER NO ERS						001999
	FAILURE MODE-OUT OF TOLERANCE- TELEMETRY MEASUREMENT 881V (400 CYCLE A-C PHASE A) INDICATED 88 PERCENT ISM (119.5 V AC) WHEN 81.5 PERCENT ISM (119.3 VAC) WAS EXPECTED. MEASUREMENTS 886V, 888V AND 889V (155 VAC 400 CYCLE TORQUE REFER ENCE PHASE A, B AND C) ALSO INDICATED VOLTAGE HIGHER THAN EXPECTED. THE DISCREPANCY WAS CAUSED BY AN INCORRECT CRYST AL RECTIFIER CALIBRATION WITHIN THE TELEPAR.						
	SYSTEM EFFECT-OPERATION TOO HIGH.						
	VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEMS LEVEL AND POST-COMPOSITE TESTING REQUIRED.						
	CORRECTIVE ACTION-THE TELEPAR WAS REMOVED AND REPLACED.						001999
	INSTRUMENTATION-A/B LV-99-24-4833-F FAR 041110 FACTORY YES TELEMETRY SET AND TRANSDUC DETECTOR-CAPACITOR 60-11110-1 NO ERS						001999
	FAILURE MODE-ERRATIC OPERATION-OUTPUT VOLTAGE FLUCTUATED AND COULD NOT BE STABILIZED. THIS WAS DUE TO A LEAKING CAP ACITOR (C-2). IT APPARENTLY FAILED DUE TO EXCESSIVE INPUT VOLTAGE (110 VOLTS).						
	CORRECTIVE ACTION-ECP 3434 HAS BEEN APPROVED PROVIDING FOR IMPROVED ELECTRONIC PARTS.						001999
	INSTRUMENTATION-A/B SLV-99-24-4809 FAR 041110 FACTORY YES WIANCO TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER 87-01998-89 NO 84103-19 ERS						001999
	FAILURE MODE-OUT OF TOLERANCE. STATIC ERROR WAS PLUS 1.74 PERCENT, WHEREAS 1 PERCENT IS THE MAXIMUM ALLOWABLE. THE FAILURE J CONFIRMED. HOWEVER, THE CAUSE OF FAILURE COULD NOT BE FOUND. THERE SEEMS TO BE AN INHERENT CRIPT.						
	CORRECTIVE ACTION-NONE.						001999
	INSTRUMENTATION-A/B SLV-99-24-4808-F FAR 041110 FACTORY YES APPLIED COMPO TELEMETRY SET AND TRANSDUC BANDPASS FILTER 87-01998-1 NO ENTA ERS AC15030-1						001999
	FAILURE MODE-ELECTRICAL SHORT. NO OUTPUT. FAILURE CAUSED BY AN INTERNAL SHORT CIRCUIT OF GROUND LEAD TO CASE HEADER						

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-LEAD-CASE CONTINUITY TEST BEING PERFORMED AT VENDOR FACILITY TO ENSURE LEADS ARE NOT SHORTED TO CASE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCERS	SLV-99-24-48 FAR	641110 27-01992-49	FACTORY	YES	MIANCO NO	54103-9	003360
FAILURE MODE-STRUCTURAL. STATIC ERROR WAS FOUND TO BE 0.30 PERCENT, WHEREAS 1 PERCENT IS THE MAXIMUM ALLOWABLE. FAILURE WAS ATTRIBUTED TO A CRACKED FERRITE PAD. CRACK WAS CAUSED BY MISHANDLING OF THE TRANSDUCER.							
CORRECTIVE ACTION-FAR SLV-99-24-48 WAS WRITTEN, RECOMMENDING MEASURES BE TAKEN TO PREVENT MISHANDLING OF TRANSDUCERS AT CONVAIR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCERS	SLV-99-20-3038-F FAR	5301 641106	FACTORY	YES	GO/C NO		003399
FAILURE MODE-ELECTRICAL OPEN-TRANSDUCER OUTPUT WAS REPORTED INTERMITTENTLY OPEN AT THE HIGH END OF THE POTENTIOMETER, BUT WAS NORMAL AT THE LOW END. THE REPORTED FAILURE OF THE TRANSDUCER ASSY WAS NOT CONFIRMED.							
CORRECTIVE ACTION-SINCE FAILURE WAS NOT CONFIRMED NO FURTHER ACTION CAN BE TAKEN AT THIS TIME.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR/RELAY	LV-99-24-4901-F FAR	641106 27-18991-1	FACTORY	YES	YES NO		003339
FAILURE MODE-ELECTRICAL SHORT. CALIBRATOR PULSE WIDTH WAS 295 MILLISEC. WHEN 300 TO 600 MILLISEC. WAS EXPECTED. FAILURE DUE TO DEFECTIVE LATCHING RELAY THAT WOULD LATCH IN ONLY ONE POSITION CAUSED BY IMPROPERLY MOUNTED PERMANENT MAGNET.							
CORRECTIVE ACTION-RELAY VENDOR TO PERFORM 100 PERCENT INSPECTION BOTH IN PROCESS AND FINAL.							
							PAGE 0101

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR ERS	LV-99-24-4682-F LV-99-24-4682-F	FAR 27-18991-1	641106	FACTORY	YES NO	093346
FAILURE MODE-OUT OF TOLERANCE. CALIBRATOR OPERATED 36.8 SEC. WHEN 38 SEC. MAX. WAS EXPECTED. FAILURE CONFIRMED, HOW EVER, REQUIREMENTS HAVE BEEN CHANGED TO ALLOW 40 SEC. MAX. OPERATING TIME.						
CORRECTIVE ACTION-NONE. CONDITION IS ACCEPTABLE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-WIRING ERS	SLV-99-24-4905-F SLV-99-24-4905-F	FAR 69-11119-1	641104	FACTORY	YES NO	093041
FAILURE MODE-OUT OF TOLERANCE. OUTPUT WAS 2.50 VDC WHEN 2.0 PLUS OR MINUS 0.005 VDC IS EXPECTED. FAILURE CAUSED BY 2 CONNECTIONS ON CIRCUIT BOARD BEING VOID OF SOLDER. DURING CALIBRATION ATTEMPT WHILE TEMP WAS BEING RAISED THE DETE CTOR'S OUTPUT JUMPED AND BECAME NOISY. THIS CONDITION ATTRIBUTED TO INADEQUATE SOLDER CONNECTIONS ON POTENTIOMETER R- 6 MANDREL.						
CORRECTIVE ACTION-RESPONSIBLE GROUPS CAUTIONED ABOUT FAILURE TO DETECT UNSOLDERED CONNECTIONS. FAULTY POTENTIOMETER REPLACED WITH IMPROVED 100K POTENTIOMETER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	FAR-SLV-49-24-4647-F FAR-SLV-49-24-4647-F	FAR 7-01684-23	7109 641104	FACTORY	YES LEWIS NO 568396	090660
FAILURE MODE-STRUCTURAL. DURING FINAL CHECKOUT, THE TRANSDUCER INDICATED AN OPEN CIRCUIT. EXAMINATION REVEALED BROK EN WIRES, THE RESULT OF MECHANICAL BREAKING BY MISHANDLING.						
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED, IT WAS RECOMMENDED THAT TORQUE PAINT BE PLACED ON THE TRANSDUCER PROTE CTIVE SHIELD TO ASSURE THAT IT IS NOT REMOVED BEFORE BEING INSTALLED ON THE VEHICLE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	69C-3652 69C-3652	UTP-PET 69-01003-39	641103	GO/C	YES BOURNS NO 2007371707	
FAILURE MODE - OUT OF TOLERANCE. DURING THE FINAL PROOF CYCLE THE UNIT WAS OUT OF TOLERANCE IN SEVERAL PLACES. THE MAXIMUM OUT OF TOLERANCE READING WAS 41.71 PERCENT AT 40 PERCENT THEORETICAL OUTPUT. THE ALLOWED ERROR IS 1.0 PERCENT T. THE FAILURE IS NOT VALID DUE TO EXCESSIVE EXPOSURE TO HIGH TEMPERATURE DURING THAT PART OF THE PET AND A MALFUNCTION ION OF THE VIBRATION EQUIPMENT DURING Z-AXIS VIBRATION, WHICH SUBJECTED THE UNIT TO POSSIBLE EXCESSIVE HIGH AMPLITU E LOW FREQUENCY SHOCK. S/N 408-1489. PET LOT 2.						

GENERAL DYNAMICS
CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
090159						
	CORRECTIVE ACTION - PET PROCEDURE 69A3852-1 WILL BE REVISED TO REQUIRE LIMITING OF 300 DEGREES F. HIGH TEMPERATURE EXPOSURE TO 5 MINUTES MAXIMUM. ACTION WILL BE ACCOMPLISHED PRIOR TO PET LOT 3 TESTING.					
090159						
INSTRUMENTATION-A/B	69C-3632	UTP-PET	641103	60/C	YES BOURNS	
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER		69-01003-39			NO 2007571707	
ERS						
FAILURE MODE - OUT OF TOLERANCE. DURING THE FINAL PROOF CYCLE THE UNIT WAS OUT OF TOLERANCE IN SEVERAL PLACES. THE MAXIMUM OUT OF TOLERANCE READING WAS 71.85 PERCENT AT 70 PERCENT THEORETICAL OUTPUT. THE ALLOWED ERROR IS 1.0 PERCENT. THE CAUSE OF THE DISCREPANCY WAS APPARENTLY THAT THE UNIT WAS NOT PROPERLY STABILIZED WHEN RECEIVED FROM THE VENDOR S/N 407-1434. PET LOT 1.						
	CORRECTIVE ACTION - VCAR 6922, DATED 28 OCTOBER 1964 CONTINUES THE PREVIOUS TEMPERATURE STABILIZATION CYCLING, AND IN ADDITION ACCOMPLISHES AN EXPOSURE TO 300 DEGREES F. FOR 5 MINUTES, EFFECTIVE 16 NOVEMBER 1964.					
091566						
INSTRUMENTATION-A/B	SLV-A9-24-4907-F	FAR	3301	FACTORY	YES BOURNS	
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER		69-01003-39	641102		NO	
ERS						
FAILURE MODE-CONTAMINATION. AN INTERMITTENT OPEN CIRCUIT WAS REPORTED. THIS WAS DUE TO PARTICLES OF EPOXY ADHESIVE MIGRATING THROUGH THE SILICONE OIL UNDER THE INFLUENCE OF LOW LEVEL VIBRATION. THE PARTICLES WERE DUE TO DETERIORATION OF THE ADHESIVE IN THE OIL.						
	CORRECTIVE ACTION-THE VENDOR CHANGED THE EPOXY ADHESIVE FROM 81668 R-314 TO GE 9322.					
095624						
INSTRUMENTATION-A/B	SLV-39-24-4865-F	FAR	641029	FACTORY	YES FIFTH DIMENSION	
TELEMETRY SET AND TRANSDUC COMMUNICATOR		87-01638-15			NO N	MAX0466
ERS						
FAILURE MODE-CONTAMINATION. A SPIKE WAS OBSERVED ON SEGMENT 30 OF THE COMMUNICATORS J-1 SECTION. THIS WAS DUE TO A SMALL PIECE OF MATERIAL RESTING ON THE RETURN CONTACT. THE ORIGIN OF THE MATERIAL OR WHETHER OR NOT IT WAS FOREIGN WAS NOT DETERMINED.						
	CORRECTIVE ACTION-THE VENDOR WAS INFORMED OF THIS FAILURE.					
						PAGE 0103

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	DATE DIF	DATE DIF	PRI OTH	VEHICLE NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	LV-99-24-4889 FAR	27-01882-49	841028	FACTORY	NO	WIANCO	993386
FAILURE MODE-STRUCTURAL. STATIC ERROR BAND WAS OUT OF TOLERANCE. FAILURE WAS ATTRIBUTED TO OVERPRESSURIZATION OF THE TRANSDUCERS IN THE POSITIVE DIRECTION. OVERPRESSURIZATION OCCURRED DURING RECALIBRATION WHILE CHANGING FROM AMBIENT TO ELEVATED REFERENCE PRESSURE.							
CORRECTIVE ACTION-PERSONNEL HANDLING DIFFERENTIAL PRESSURE TRANSDUCERS WERE ACQUAINTED WITH THE CONTENTS OF PAR LV-99-24-8435, AND WERE CAUTIONED AGAINST IMPROPER PRESSURIZATION OF THESE TRANSDUCERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER 3/M 84-30, CIRCUIT BOARD 27-01812-5 ERS	FR89A2178.4	UTP-PRT	841029	GD/C	YES	BENDIX NO TAY-102	890818
FAILURE MODE-ELECTRICAL OPEN. TEST SPECIMEN OPERATING AT NORMAL 27.5 VDC POWER LEVEL WITH THE TRANSMITTER OUTPUT BEING RECORDED ON MAGNETIC TAPE DURING BENCH TEST AT ROOM AMBIENT CONDITIONS. OUTPUT OBSERVED TO DROP FROM ACCEPTABLE 8.4 WATTS TO UNACCEPTABLE 6.4 WATTS AFTER TWO HOURS OF CONTINUOUS OPERATION. THIS WAS CAUSED BY LOOSE GROUND BETWEEN VARIABLE COMPONENTS MOUNTING BLOCK AND THE CASE DUE TO FOUR LOOSE SCREWS.							
CORRECTIVE ACTION-SOURCE INSPECTION PERSONNEL AT THE VENDOR WAS NOTIFIED OF THE LOOSE SCREW FINDING BY GO/A QUALITY CONTROL AND REQUESTED ACTION BE TAKEN TO PREVENT LOOSE AMPLIFIER SCREWS. REF. FR-654-2-423.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	SLV-99-24-4910 FAR	27-01992-51	841028	FACTORY	YES	WIANCO NO 54103-13	890886
FAILURE MODE-OUT OF TOLERANCE. STATIC ERROR BANDS WERE -1.72 PERCENT FOR EACH TRANSDUCER. THE CAUSE OF FAILURE COULD NOT BE FOUND. HOWEVER, THERE DOES SEEM TO BE INHERENT DRIFT, PROBABLY CAUSED BY AGING OF ELECTRICAL OR MECHANICAL COMPONENTS.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POSITION TRANSDUCER ERS	FAR-LV-98-24-4836 FAR	69-01005-1	841028	13	YES	SERVONIC NO 5041-0101	
FAILURE MODE-CONTAMINATION. THE TRANSDUCER WAS REJECTED WHEN A HIGH RESISTANCE SHORT WAS MEASURED BETWEEN THE WIPER AND CASE. EXAMINATION REVEALED SOLDER PARTICLES IMBEDDED IN THE POTTING MATERIAL BONDING THE WIPER TO ITS SUPPORT 8 WAF.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. RAR LV-98-24-843D REQUESTED THE VENDOR TO REVIEW PRODUCTION PROCEDURES. THE VENDOR STATED THAT APPROPRIATE PERSONNEL WERE CAUTIONED REGARDING THEIR WORKMANSHIP.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS	8LV-99-24-4932-P FAR 27-01636-21	641028	FACTORY	YES	FIFTH DIMENSION NO	MRXD469
FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR FAILED DURING VIBRATION TESTING ON THE TOP ASSEMBLY WHEN ITS SPEED DROPPED TO 4.44 RPS. BEFORE VIBRATION THE SPEED WAS 4.78 RPS AND AFTER VIBRATION 4.91 RPS. THE SPECIFIED SPEED IS 5.00 RPS PLUS 5. MINUS 10 PERCENT THE FAILURE WAS CONFIRMED AND ATTRIBUTED TO AN EXCESSIVE SIDE LOAD ON THE MOTOR BEARING.						
CORRECTIVE ACTION-REQUESTED VENDOR REVIEW ITS ASSEMBLY PROCEDURE AND THE POSSIBILITY OF A MOTOR BEING INSTALLED OFF CENTER CAUSING A SIDE LOAD ON THE MOTOR BEARING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	49C-2037 UTP-PRT 7-01633-5	641028	CU/C	YES	LEWIS NO	569346
FAILURE MODE-CONTAMINATION. THE OBSERVED INSULATION RESISTANCE WAS 40,000 OHMS WITH SIMPSON MULTIMETER. REQUIRED RESISTANCE IS 20 MEGOHMS AT 200 VDC. APPEARS TO BE DUE TO EFFECT OF MOISTURE ON MAGNESIUM OXIDE INSULATION.						
CORRECTIVE ACTION-CO/A STOCK OF THESE TRANSDUCERS WERE RETURNED TO THE VENDOR (LEWIS) FOR REMARK.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	8LV-99-24-4964P FAR 69-01003-13	5301	FACTORY	YES	BOURNS NO	
FAILURE MODE-EXTERNAL LEAK. UNIT REJECTED FOR OUT OF TOLERANCE STATIC ERRORS. FAILURE ATTRIBUTED TO LOSS OF REFERENCE PRESSURE THROUGH TWO SMALL LEAKS IN THE CONNECTOR TO CASE SOLDER JOINT.						
CORRECTIVE ACTION-VENDOR PERSONNEL REQUESTED TO USE GREATER CARE IN SOLDERING AND INSPECTION.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	LV-99-24-4883 PRESSURE TRANSDUCER	FAR 7-01731-7	2250 041087	FACTORY	YES BOURNS NO 71724-0-8-752	090731
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER EXHIBITED AN OUT OF TOLERANCE POSITIVE SHIFT. ALTHOUGH NO DAMAGE WAS OBSERVED TO PROVE THE CAUSE OF FAILURE, A POSITIVE SHIFT IN AN UNDAUNTED TRANSDUCER SUGGESTS OVERPRESSURIZATION. OVERPRESSURIZATION WOULD RESULT IN PERMANENT DISTORTION OF THE SENSING ELEMENT.						
CORRECTIVE ACTION-APPROPRIATE CONVAIR GROUPS WERE INFORMED OF THE RESULTS OF THIS ANALYSIS AND WERE REQUESTED TO MAKE TRANSDUCERS WITH GREATER CARE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	PET-TP-1-0280-1 PRESSURE TRANSDUCER	UTP-PET 7-01731-1	041026	FACTORY	YES BOURNS NO 71724-0-8-752	090767
FAILURE MODE-OUT OF TOLERANCE. DURING OPERATING VIBRATION TESTS, UNIT EXHIBITED 7 TO 35 PERCENT DEVIATION (FSO) DUE TO SPIKING. THE FAILURE WAS DUE TO CASE RESONANCES RESULTING IN WIPER LIFT-OFF.						
CORRECTIVE ACTION-GO/C REJECTED PET LOT 14 AND RETURNED THE TRANSDUCERS TO THE VENDOR. THE VENDOR INCREASED CONTROL OF MANUFACTURING TOLERANCES DURING ASSEMBLY.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER POWER SUPPLY, CAPACITOR 55-13840-801 ERS	SLV-99-24-4880-F TRANSDUCER POWER SUPPLY, CAPACITOR 55-13840-801	FAR	041024	FACTORY	YES NO	090623
FAILURE MODE-OUT OF SPECIFICATION. NOISE LEVEL WAS 60 AND 150 MILLIVOLTS. SPECIFICATIONS CALL FOR A MAXIMUM NOISE OF 25 AND 85 MILLIVOLTS. THE FAILURE WAS DUE TO A FRACTURE IN ONE ENDCAP CONNECTION OF CAPACITOR C-Y (DEARBORN P/N HPF 104P2, 0.1 MICRO FARAD).						
CORRECTIVE ACTION-ECP 2434 HAS BEEN APPROVED, PROVIDING FOR IMPROVED ELECTRONIC PARTS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR RESISTOR ERS	CT-99-24-3200 OSCILLATOR RESISTOR	FAR 7-01486-831	041024	FACTORY	YES INTERNATIONAL NO RESISTOR CORP 1041082-1-K	
FAILURE MODE-ELECTRICAL OPEN. OSCILLATOR COULD NOT BE ADJUSTED WITHIN FREQUENCY SPECIFICATION LIMITS. THE LOWEST OUTPUT OBTAINABLE WAS 19887 CPS WHEREAS 19294 PLUS OR MINUS 216 CPS IS REQUIRED. FAILURE WAS CAUSED BY OPEN CIRCUIT IN 6 OF THE LEAD ATTACHMENT CUP SOLDER CONNECTION IN METAL FILM RESISTOR R-23. THE SOLDER CONNECTION WAS FRACTURED. THE OPEN CIRCUIT REMOVED THE MULTIVIBRATOR SECTION TUBES CATHODE BIAS, REDUCING THE OUTPUT FREQUENCY EXCURSION OF THE SECTION.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-REQUESTED THE RESISTOR VENDOR, INTERNATIONAL RESISTOR CORPORATION, MORE CLOSELY MONITOR THE LEAD CUP BONDING PROCESSES TO ACHIEVE CORRECT CUP BONDING.						993094
	INSTRUMENTATION-A/B LV-A9-24-488F TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	FAR 7-01728-8	184D 641023	FACTORY	YES	BOURNS NO 71723-0-10-752	993107
	FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER HAD WRONG OUTPUT AT AMBIENT PRESSURE. THE FAILURE WAS CAUSED BY SHIFTING OF THE WIPER ARM PROBABLY BECAUSE OF OVERPRESSURIZATION OF THE TRANSDUCER. THE TRANSDUCER HAD PASSED ITS LAST CALIBRATION.						
	CORRECTIVE ACTION-NONE.						
	INSTRUMENTATION-A/B SLV-A9-24-4911 TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR 89-01004-23	7108 641023	FACTORY	NO	BOURNS NO 2023203001	990803
	FAILURE MODE-STRUCTURAL. TRANSDUCERS WERE READING HIGHER THAN THE EXPECTED VALUE. FAILURE WAS DUE TO OVERPRESSURIZATION.						
	CORRECTIVE ACTION-NONE.						
	INSTRUMENTATION-A/B SLV-99-24-4848-F TELEMETRY SET AND TRANSDUC BAND PASS FILTER ERS	FAR 87-01293-23	641022	FACTORY	YES	APPLIED COMPO NO ENTS AC13030-23	995618
	FAILURE MODE-OUT OF SPECIFICATION. THE OUTPUT VOLTAGE WAS REPORTEDLY HIGHER THAN SPECIFIED. THIS WAS FOUND TO BE DUE TO IMPROPER ADJUSTMENT.						
	CORRECTIVE ACTION-A CAUTION NOTE WAS ADDED TO EQUIPMENT OPERATING PROCEDURE 330.411.						
	INSTRUMENTATION-A/B LV-A9-24-4870-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER/O TO 3500 PSIA 7-01720-3 ERS	FAR 7-01720-3	184D 641022	FACTORY		BOURNS	
	FAILURE MODE-OPEN (ELECT). TWO TRANSDUCERS FAILED BY INDICATING AN INTERMITTENT OPEN CIRCUIT. THIS WAS CAUSED BY MISSING GRATING PARTICLES OF EPOXY ADHESIVE IN THE SILICONE OIL DAMPING FLUID WHEN SUBJECTED TO LOW LEVEL VIBRATION (GROUND-						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
SOURCE HYDRAULIC SYSTEM PRESSURIZED WITH THE AUTOPILOT OIL.							093635
CORRECTIVE ACTION-BURNS CHANGED THEIR ADHESIVE FROM 81668 R-314 TO 6E 9822.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BANDPASS FILTER ERS	LY-9B-24-4861-F FAR 27-01295-23	2910 641022	FACTORY	YES NO	ENTB ACT 3030-23		093444
FAILURE MODE-0 : OF TOLERANCE. OUTPUT AT 9718 CPS WAS 2.0 VOLTS PEAK-TO-PEAK WHEN 1.0 TO 1.5 VOLTS MAX IS EXPECTED. CAUSE ATTRIBUTED TO OUTPUT BEING ADJUSTED AT THE WRONG FREQUENCY.							
CORRECTIVE ACTION-APPROPRIATE PERSONNEL INFORMED OF FILTER CHARACTERISTICS AND RESULTS OF ANALYSIS. PROCEDURE CHANGED TO INSURE PROPER ADJUSTMENT OF THE FILTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	SLV-A9-24-4837F FAR 69-11100-813	7108 641022	FACTORY	YES NO	BENDIX		093408
FAILURE MODE-OUT OF TOLERANCE. TRANSMITTER CARRIER FREQUENCY WAS HIGH. MAY HAVE BEEN DUE TO THE OSCILLATOR BEING DETUNED FROM THE NATURAL CRYSTAL FREQUENCY.							
CORRECTIVE ACTION-CHANGES WERE MADE BY BENDIX TO PROCEDURES AND SPECIFICATIONS TO MAINTAIN BETTER FREQUENCY STABILITY OF THESE TRANSMITTERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	LY-9B-24-4861F FAR 7-01649-9	2980 641022	ETR-12	YES NO	ROSEMOUNT 134AC		092837
FAILURE MODE-UNIT REJECTED FOR ERRATIC OPERATION.							
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER TRANSDUCER ERS	FAR-8LV-A9-24-4898-F FAR 7-01413-5	7108 641022	WTR	YES NO	BORG-WARNER 9747-B		
FAILURE MODE-ELECTRICAL SHORT. DURING FINAL CHECKOUT THE TRANSDUCER WAS OVERHEATING AND DRIFTING. AFTER DISASSEMBLY, A SHORT WAS FOUND IN THE HEATER CIRCUIT.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							090672
	CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED, BUT THE CAUSE OF THE SHORT CIRCUIT WAS NOT DETERMINED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	69C-3652	UTP-PET 69-01003-39	641021	60/C	YES BOURNS NO 2007371707		092315
FAILURE MODE - OUT OF SPECIFICATION. DURING THE 21 OCTOBER 1964 POST PLUS 300 DEGREES F PROOF CYCLE THE MAXIMUM ERROR WAS PLUS 1.11 PERCENT. DURING THE 22 OCTOBER 1964 POST VIBRATION PROOF CYCLE THE MAXIMUM ERROR WAS PLUS 1.60 PERCENT. DURING THE 3 NOVEMBER 1964 FINAL PROOF CYCLE THE MAXIMUM ERROR WAS 1.85 PERCENT. THE ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT. APPARENTLY, THE TRANSDUCER WAS NOT PROPERLY TEMPERATURE STABILIZED WHEN RECEIVED FROM THE VENDOR. S/N 4071434, PET LOT 1.							
	CORRECTIVE ACTION-THE VENDOR WILL EXPOSE EACH TRANSDUCER TO 300 DEGREES F FOR 5 MINUTES, EFFECTIVE 16 NOVEMBER 1964.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	69C-3652	UTP-PET 69-01003-39	641021	60/C	YES BOURNS NO 2007371707		092314
FAILURE MODE - OUT OF SPECIFICATION. DURING THE 21 OCTOBER 1964 POST PLUS 300 DEGREES F PROOF CYCLE AND THE POST VIBRATION PROOF CYCLE THE MAXIMUM ERROR WAS PLUS 1.34 PERCENT AND PLUS 1.61 PERCENT OF FULL SCALE OUTPUT RESPECTIVELY. DURING THE 3 NOVEMBER 1964 FINAL PROOF CYCLE THE MAXIMUM ERROR WAS PLUS 1.71 PERCENT OF FULL SCALE OUTPUT. THE ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT. THESE DISCREPANCIES WERE CAUSED BY EXCESSIVE EXPOSURE TO HIGH TEMPERATURE AND POSSIBLE EXCESSIVE VIBRATION. S/N 4081459, PET LOT 2.							
	CORRECTIVE ACTION-PET PROCEDURE 09A3652-1 WAS REVISED TO REQUIRE LIMITING OF 300 DEGREES F HIGH TEMPERATURE EXPOSURE TO 5 MINUTES MAXIMUM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	LV-98-24-4697-7	FAR 7-01720-3	2890 641021	ETR	YES BERYONICS NO		091503
FAILURE MODE-ERRATIC OPERATION. IT WAS REPORTED THE TRANSDUCER OUTPUT SIGNAL CONTAINED SUFFICIENT NOISE TO CAUSE A 10 TO 20 PERCENT VARIATION IN THE DATA LEVEL.							
	CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP TIME	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR ERS	LV-99-24-4848-F TRANSDUC CALIBRATOR	FAR 87-12281-8	641020	FACTORY	YES NO		000020
FAILURE MODE-FAIL TO CEASE OPERATION AT PRESCRIBED TIME. THE CALIBRATOR REPORTEDLY FAILED IN THE NEXT ASSEMBLY WHEN IT OPERATED 48 SECONDS. OPERATING TIME SHOULD BE BETWEEN 18 AND 35 SECONDS.							
CORRECTIVE ACTION-NONE-THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-99-24-4830-C TRANSDUC OSCILLATOR	FAR 7-01664-881	194D 641020	FACTORY	YES BENDIX NO 1040658-47		000036
FAILURE MODE-OUT OF TOLERANCE. COULD NOT BE ADJUSTED TO CENTER FREQUENCY OF 960 CYCLES PER SECOND.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-LV-90-24-4844-F PRESSURE TRANSDUCER	FAR 87-01386-20	353D 641020	WTR 2-3	YES SERVONIC NO 2091-0908		000096
FAILURE MODE-STRUCTURAL. DURING A TEST ON THE MISSILE, THE TRANSDUCER WAS READING LOW OVER PART OF ITS RANGE. EXAMINATION REVEALED THAT THE RESISTIVE ELEMENT WAS WORN, PROBABLY CAUSED BY HIGH FREQUENCY DITHER. FOR A RELATED CASE, SEE FAR-LV-98-24-4787-F.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. AS A RESULT OF THIS PROBLEM, THE TRANSDUCER CALIBRATION CYCLE WAS CHANGED TO A SIX MONTH PERIOD.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	LV-99-24-4820-F COMMUTATOR	FAR 87-11841-939	196D 641019	FACTORY	YES BENDIX NO		000011
FAILURE MODE-ERRATIC OPERATION. CHANNEL 14 HAD BREAKUP OF 85 PERCENT INFORMATION BAND WIDTH ON TWO MASTER PULSES AT T PLUS 47.8 SECONDS OF THE MISSILE TELEMETRY TEST. FAILURE WAS DUE TO UNSATISFACTORY COMMUTATOR OPERATION.							
CORRECTIVE ACTION-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	PAR-LV-AS-24-4848-F PAR-LV-AS-24-4848-F PAR-LV-AS-24-4848-F	FAR 87-01368-29	1960 841019	FACTORY	YES	SERVONIC MO 175-2	090841
FAILURE MODE-OUT OF TOLERANCE. DURING CHECKOUT OF MISSILE 1960, THE OUTPUT OF THIS TRANSDUCER SHIFTED OUT OF THE SPECIFIED ERROR BAND. EXAMINATION DID NOT REVEAL DISCREPANCIES, ALTHOUGH THE SHIFT IN OUTPUT WAS DUPLICATED. THIS IS TYPICAL OF AN OVERLOAD FAILURE, AND MAY HAVE BEEN AN ISOLATED CASE.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE CAUSE OF FAILURE WAS NOT PROVED, AND NO CORRECTIVE ACTION WAS TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-TRANSMITTER ERS	LV-AS-24-4024-C LV-AS-24-4024-C LV-AS-24-4024-C	FAR 87-13841-839	1960 841019	FACTORY	YES	BENDIX MO	093410
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 4 WAS OUT OF BAND AND CHANNEL 14 OPERATED NEAR THE HIGH FREQUENCY BAND EDGE.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS CANCELLED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR-TRANSFORMER ERS	A-98-24-4838-F A-98-24-4838-F A-98-24-4838-F	FAR 87-13363-19	841019	FACTORY	YES	APPLIED COMPOS MO ENTS 2112	093867
FAILURE MODE-OUT OF TOLERANCE. DURING NEXT ASSEMBLY TESTING, A DC VOLTAGE WAS FOUND TO BE TOO HIGH. REPLACING THE TRANSFORMER 87-01108-1 RESULTED IN THE ASSEMBLY PASSING THE TEST.							
CORRECTIVE ACTION-NONE-THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER-POWER SUPPLY ERS	FR892170.2 FR892170.2 FR892170.2	UTP-SLT 88-13340-803	841019	60/C	YES	60/C YES 88-13340-803	
FAILURE MODE-ELECTRICAL SHORT. TEST SPECIMEN WAS AT ROOM AMBIENT TEMPERATURE DURING BENCH TEST FOLLOWING SLT 12 & A CELEBRATION TEST. THE OUTPUT VOLTAGES (-6 VDC TO +9.9 VDC) OF TRANSDUCER POWER SUPPLY (P/N 88-13340-803) DROPPED TO ZERO DURING PROOF CYCLE FOLLOWING SLT ACCELERATION. THIS WAS CAUSED BY TRANSISTOR Q1 SHORTING OUT AS A RESULT OF Q4 BURNING OUT ON TRANSDUCER POWER SUPPLY.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE. FAILURE CONSIDERED RANDOM. REF. PR-884-B-411 SUPPLEMENT A.						
990820						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC TUN CARRIER-TRANSMITTER						
ERR						
993419						
FAILURE MODE-OUT OF TOLERANCE. THE TRANSMITTER FAILED REPORTEDLY DUE TO ERROR IN WIRING.						
CORRECTIVE ACTION-NONE.						
993418						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC COMMUTATOR						
ERR						
FAILURE MODE-FAILED TO OPERATE AT THE PRESCRIBED TIME. CHANNEL E COMMUTATOR DID NOT OPERATE BECAUSE OF AN ERROR IN THE PROCEDURE.						
CORRECTIVE ACTION-ONE COPY OF PROCEDURE 27-92028-1, USED BY INSPECTORS ON MISSILE 196-D, HAS HAD THE SENTENCE, (SET COMMUTATOR SWITCH ON), REMOVED FROM PAGE 025, PARAGRAPH F.						
990897						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER						
ERR						
FAILURE MODE-STRUCTURAL. DURING TELEMETRY CHECKOUT, THE TRANSDUCER WAS READING OUT OF THE SPECIFIED BAND. EXAMINATION REVEALED DAMAGE TO THE BOURDON TUBE AND MECHANICAL STOP DUE TO OVERPRESSURIZATION.						
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. ACTION WAS REQUESTED, WHERE APPROPRIATE, TO ELIMINATE THE POSSIBILITY OF APPLYING EXCESSIVE PRESSURE. SEE PAR-LV-A9-24-0422.						
993420						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC OSCILLATOR						
ERR						
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A OPERATED OUTSIDE THE LOW FREQUENCY BAND EDGE. CHANNEL A SUBCARRIER OSCILLATION WAS REPLACED AND OPERATION WAS NORMAL. CAUSE OF FAILURE OF THE OSCILLATOR WAS NOT DETERMINED.						
CORRECTIVE ACTION-NONE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR ERS	LV-99-24-4045-F	FAR 99-11118-1	941010	FACTORY	YES NO		993409
FAILURE MODE-OUT OF TOLERANCE. WHILE TESTING THE NEXT ASSEMBLY. THE MEASURED OUTPUT VOLTAGE WAS LOW.							
CORRECTIVE ACTION-NONE-THE FAILURE REPORTED WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-99-24-4018-F	FAR 99-13337-833	1740 941010	FACTORY	YES NO	BENDIX	993412
FAILURE MODE-OUT OF TOLERANCE. CHANNEL E FREQUENCY WAS OUT OF TOLERANCE. AFTER THE CHANNEL E SUBCARRIER OSCILLATOR WAS REPLACED, OPERATION WAS NORMAL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-WIRING ERS	LV-99-24-4025-F	FAR 99-13668-837	1980 941009	FACTORY	YES NO		993409
FAILURE MODE-OUT OF TOLERANCE. INTERMITTENT OUTPUT FROM CHANNEL 11. THIS WAS DUE TO A POOR SOLDER CONNECTION ON THE SUB CARRIER OSCILLATOR FILTER.							
CORRECTIVE ACTION-BENDIX-PACIFIC WAS REQUESTED TO REVIEW THE SUPPLIER'S QUALITY-CONTROL PROGRAM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TUN CANISTER ERS	LV-99-24-4017-F	FAR 99-13337-833	1740 941009	FACTORY	YES NO	BENDIX	991994
FAILURE MODE-ERRATIC OPERATION. CHANNEL 12 INDICATED COMPLETE BREAKUP FROM 15 TO 16 SECONDS.							
CORRECTIVE ACTION-NONE. CAUSE OF FAILURE WAS NOT KNOWN, AS FAILURE ANALYSIS WAS CANCELLED AT AIR FORCE REQUEST.							

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SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	TAILED COMPONENT NAME	PART NUMBER	DATE DIP	TIME DIP	OTH	VENDOR PART NO
INSTRUMENTATION-A/B	80C148.3	UTP-PRT	841008	50/C	YES	BOURNS
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER		89-01003-13			NO	8004208304
ERR						
FAILURE MODE-STRUCTURAL. DURING RANDOM/SINE VIBRATION TESTING UNIT HAD OUTPUT UP TO -8 PERCENT OF THE PRIMARY VALVE . AT COMPLETION OF VIBRATION SWEEP UNIT DID NOT RESPOND TO PRESSURE AND REMAINED AT 80 PERCENT OUTPUT. OUTPUT SHIFTS 0 TO 89.89 PERCENT WHEN UNIT WAS TAPPED. CAUSED BY BROKEN LINKAGE WIRE BETWEEN BELLONS AND WIPER.						
CORRECTIVE ACTION-EXISTING. APPROVED. DEFINITIZED SPECIFICATIONS /SPECIFICATION CONTROL DRAWING 89-01003 AND BOOK 2 SPECIFICATION 87-01443/ FOR THIS TRANSDUCER DO NOT REQUIRE IT TO WITHSTAND RANDOM/SINE VIBRATION. CONTINUED USE WILL BE MADE OF THIS TRANSDUCER WITHOUT CHANGE IN SPECIFICATION OR CONFIGURATION.						
INSTRUMENTATION-A/B	8LV-99-24-4872	FAR	841008	FACTORY	YES	SERVOMIC
TELEMETRY SET AND TRANSDUC TRANSDUCER		89-01003-1			NO	5041-0101
ERR						
FAILURE MODE-OUT OF TOLERANCE. STARTING FORCE WAS MORE THAN THE SPECIFIED 12 INCH OUNCE MAXIMUM SPECIFICATION. HIGH STARTING FORCE WAS CAUSED BY INADEQUATE LUBRICANT ON THE O-RINGS.						
CORRECTIVE ACTION-ALL TRANSDUCERS WILL BE LUBRICATED WITH A 98 PERCENT DC-S10 4 PERCENT MOLY-DI-SULFIDE MIXTURE ON THE O-RINGS AND SHAFT.						
INSTRUMENTATION-A/B	8LV-99-24-4873	FAR	841008	FACTORY	YES	SERVOMIC
TELEMETRY SET AND TRANSDUC TRANSDUCER		89-01003-1			NO	5041-0101
ERR						
FAILURE MODE-ELECTRICAL OPEN. THE ELEMENT MEASURED OPEN ELECTRICALLY. FAILURE WAS CAUSED BY PASSAGE OF EXCESS CURRENT THROUGH THE ELEMENT WIRE BURNING THE ELEMENT OPEN.						
CORRECTIVE ACTION-PERSONNEL WERE CAUTIONED TO USE ONLY HIGH IMPEDANCE MEASURING DEVICES.						
INSTRUMENTATION-A/B	80/AAC093-001-22.7C-CO-01-0808-078	COMPOSITE-FACTORY	1740	FACTORY	YES	
TELEMETRY SET AND TRANSDUC TLM CAMISTER		841008			NO	
ERR		88-13537-838				
FAILURE MODE-ERRATIC OPERATION-TELEMETRY CHANNEL IS INDICATED BREAKUP FOR APPROXIMATELY 1 SECOND DURATION AND CHANNEL EL 5 (SUSTAINER PITCH POSITION), INDICATED 7 PERCENT VARIATIONS IN HULL POSITION.						
SYSTEM EFFECT-ERRATIC OPERATION.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM LEVEL AND COMPOSITE RETESTING REQUIRED. CORRECTIVE ACTION-REPLACED TELEMETRY PACKAGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR ERS	SLV-99-24-4876-F	FAR ST-12201-8	941008	FACTORY	YES NO	997400
FAILURE MODE-OUT OF TOLERANCE. CALIBRATOR OPERATED FOR 30 SEC. WHEN 38 SEC. MAX. WAS EXPECTED. FAILURE CAUSED BY CA LIBRATOR NOT BEING TEMPERATURE COMPENSATED.						993548
CORRECTIVE ACTION-PROCEDURE REVISED TO ALLOW 10 TO 40 SEC. OPERATING TIME FOR THE CALIBRATOR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	LV-99-24-4803C	FAR 87-11841-930	1940	FACTORY	YES NO	993422
FAILURE MODE-OUT OF TOLERANCE. SEGMENTS 51 AND 53 OF CHANNEL 16 WERE OVER 100 PERCENT OF INFORMATION BANDWIDTH INS TEAD OF 80 TO 100 PERCENT.						
CORRECTIVE ACTION-NONE. NO FAILURE ANALYSIS PERFORMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-TRANSISTOR ERS	SLV-99-24-4799F	FAR 87-01838-13	941008	FACTORY	YES NO	992080
FAILURE MODE-STRUCTURAL. THE COMMUTATOR WAS REPORTED TO HAVE STOPPED OPERATING DURING VIBRATION TESTING. FAILURE WA S CAUSED BY A CRACKED TRANSISTOR LEAD. CRACKING WAS CAUSED BY THE SHARP BEND RADIUS OF THE TRANSISTOR LEADS.						
CORRECTIVE ACTION-THE TRANSISTOR LEAD DRESS HAS BEEN INVESTIGATED FOR IMPROVEMENT, AND A MANUFACTURING PROCESS INST RUCTION ISSUED WHICH DEFINES TRANSISTOR LEAD DRESS AND PRECLUDES SHARP BENDS AT THE TRANSISTOR BODY TO PREVENT LEAD BREAKAGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	LV-99-24-4813-C	FAR				

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	SLV-99-24-4834F TRANSDUCER	FAR 69-01003-39	641000	FACTORY	YES	BOURNS	893514
FAILURE MODE-FIVE UNITS REJECTED FOR INTERMITTENT OPEN CIRCUIT. FAILURES ATTRIBUTED TO DETERIORATION OF THE EPOXY ADHESIVE USED IN ASSEMBLY, AND BY MIGRATION OF EPOXY PARTICLES THROUGHOUT THE SILICONE OIL. THE SAME FAILURE WAS REPORTED ON TWO UNITS BY FAR SLV-99-24-4838 AND ON ONE UNIT BY FAR LV-99-24-4889.							
CORRECTIVE ACTION-A VCP WAS APPROVED ALLOWING THE VENDOR TO CHANGE THE ADHESIVE FROM BIGGS R-314 TO GE 9522.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	SLV-99-24-4834F TRANSDUCER	FAR 69-01003-39	641000	FACTORY	YES	BOURNS	892898
FAILURE MODE-CONTAMINATION. TWO UNITS REJECTED FOR INTERMITTENT OPEN CIRCUIT. FAILURES ATTRIBUTED TO DETERIORATION OF THE EPOXY ADHESIVE USED IN ASSEMBLY, AND BY MIGRATION OF EPOXY PARTICLES THROUGHOUT THE SILICONE OIL.							
CORRECTIVE ACTION-A VCP WAS APPROVED ALLOWING THE VENDOR TO CHANGE THE ADHESIVE FROM BIGGS R-314 TO GENERAL ELECTRIC 9512.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	SLV-99-24-4834F TRANSDUCER	FAR 69-01003-31	641000	FACTORY	YES	BOURNS	891975
FAILURE MODE-CONTAMINATION. THREE UNITS REJECTED FOR INTERMITTENT OPEN CIRCUITS. FAILURES ATTRIBUTED TO DETERIORATION OF THE EPOXY ADHESIVE USED IN ASSEMBLY, AND BY MIGRATION OF EPOXY PARTICLES THROUGHOUT THE SILICONE OIL.							
CORRECTIVE ACTION-A VCP WAS APPROVED ALLOWING THE VENDOR TO CHANGE THE ADHESIVE FROM BIGGS R-314 TO GE 9522.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	A-99-24-4849-F BAND PASS FILTER	FAR 27-01295-1	640920	FACTORY	YES	APPLIED COMPONENTS AC13030-1	893621
FAILURE MODE-OUT OF SPECIFICATION. OUTPUT AT 810CPS WAS TOO HIGH. RESONANT FREQUENCIES WERE 400 AND 450CPS. SHOULD HAVE BEEN BETWEEN 397 AND 403CPS. FAILURE DUE TO IMPROPER CURING OF EPOXY-IMPREGNATED INDUCTORS.							
CORRECTIVE ACTION-VENDOR CHANGED PROCEDURES AND SPECIFICATIONS FOR TESTING, INCLUDING TEMPERATURE CYCLING FOR STABILITY.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-LV-JA-24-4851 FAR 58-01107-03	353D 640987	FACTORY NO	401-0-4-75		899424
FAILURE MODE-STRUCTURAL. THE TRANSDUCER WAS REJECTED WHEN THE SOLDER JOINT WAS FOUND BROKEN. THE JOINT WAS INCOMPLETELY FILLED WITH SOLDER AND NUMEROUS POROUS AREAS WERE FOUND.						
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IN RESPONSE TO VENDOR CORRECTIVE ACTION REQUEST 3628-03 DATED 630316, THE VENDOR STATED THAT ALL UNITS NOW BEING MANUFACTURED ARE WELDED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	8LV-89-24-4826-F FAR 55-13540-803	640984	FACTORY	YES NO		899997
FAILURE MODE-ELECTRICAL OPEN. NO VOLTAGE WAS MEASURED AT THE 5 VOLT DC OUTPUT. THIS WAS DUE TO A POOR SOLDERED CONNECTION OF ONE OF THE PISTONS TO THE FOIL OF CAPACITOR C-3 IN THE CHOPPER CIRCUIT.						
CORRECTIVE ACTION-ECP 3434 WAS APPROVED TO REPLACE THIS CAPACITOR WITH AN IMPROVED PART.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CAMISTER-CONNECTOR ERS	6DA/BKF64-042/L4-701-00-7102 FLIGHT 69-11100	7102 640983	2-4 52	YES YES		899936
FAILURE MODE-FAIL DURING OPERATION. POSSIBLY CONNECTOR AT TRANSMITTER LOOSENED UNDER VIBRATIONAL STIMULUS.						
SYSTEM EFFECT-ERRATIC OPERATION. LOOSENING OF CONNECTOR CAUSED RF NO. 1 SIGNAL STRENGTH FLUCTUATIONS (APPROXIMATELY 12 DB PEAK-TO-PEAK).						
VEHICLE EFFECT-NONE. DATA RETRIEVAL VIA RF NO. 1 NOT AFFECTED.						
CORRECTIVE ACTION-CLOSER ADHERENCE TO CONNECTOR INSTALLATION DRAWING RE-EMPHASIZED TO QC AND INSPECTION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	6DA/BKF64-042/L4-701-00-7102 FLIGHT	7102 640983	2-4	YES NO		
FAILURE MODE-OUT OF TOLERANCE. RF NO. 1 CHANNEL 11 COMMUTATOR SPEED 7.2 PERCENT FASTER THAN NOMINAL SPEED OF 2.5 RP (TOLERANCE IS 5 PERCENT). OVERSPEED ATTRIBUTED TO LACK OF COMMUTATOR DRAG (CHANNEL 11 MOTOR DRIVES ONLY ONE COMMUTATOR WHILE OTHERS DRIVE AT LEAST 2) AND RUN TIME (MOTORS HAVE HISTORY OF GAINING SPEED WITH OPERATING TIME).						
SYSTEM EFFECT-NONE. THE OUT OF TOLERANCE SPEED DID NOT RESULT IN ANY DATA RETRIEVAL DIFFICULTIES.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE. PROPOSAL TO PERFORM 80-HOUR RUN TIME TEST FOR COMMUTATOR MOTORS DISAPPROVED BY CDC ENGINEERING CHANGE BOARD.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-89-24-4826-F FAR 69-11118-1	640922	FACTORY	YES SPECTROL NO MOD 80		
FAILURE MODE-ELECTRICAL OPEN. THE OUTPUT AT PIN 18 OF DEMO 69-11110-9 VARIED AFTER THE UNIT WARMED UP. THIS WAS DUE TO AN OPEN 100,000 OHM WIRE WOUND POTENTIOMETER IN DETECTOR 69-11110.						
CORRECTIVE ACTION-THE POTENTIOMETER MANUFACTURER- (1) FOUND AND CORRECTED A FAULTY FIXTURE, (2) INITIATED A 100 PER CENT HIGH TEMPERATURE INSPECTION. ECP 3434 WAS APPROVED FOR AN IMPROVED POTENTIOMETER. SPECTROL MODEL 80 POTENTIOMETERS WERE REMOVED FROM THE PREFERRED PARTS LIST AND THE 100,000 OHM SIZE WAS DECLARED INACTIVE FOR NEW DESIGN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	CT-99-24-3189 FAR 7-01488-839	640922	FACTORY	NO BENDIX MO 1041862-3K		
FAILURE MODE-OUT OF SPECIFICATION. OSCILLATOR REPORTERLY CAUSED THE TELEMETRY CHANNEL-C OUTPUT TO BECOME NOISY DURING THE DESTRUCT SIGNAL ON TELEMETRY CHANNEL-E. THIS OCCURRED DURING TESTING OF THE OSCILLATOR NEXT ASSEMBLY. TELEMETRY P/N 55-13337-853, PEP EOP 55-330-27.2. FAILURE WAS NOT CONFIRMED. THE FAILURE REPORTED IS ATTRIBUTED TO EITHER FAULTY TEST EQUIPMENT OR THE USE OF WRONG DISCRIMINATORS IN THE TEST EQUIPMENT.						
CORRECTIVE ACTION-IT IS RECOMMENDED THE TEST EQUIPMENT FAULT BE CORRECTED AND TEST PERSONNEL BE INSTRUCTED IN THE CORRECT USE OF TEST EQUIPMENT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	FAR-8LV-90-24-4807-C FAR 7-01884-3	7102 640922	2-3	YES LEWIS NO 56838A		
FAILURE MODE-ELECTRICAL OPEN. THE INDICATED FAILURE WAS AN OPEN CIRCUIT. HOWEVER AN ANALYSIS WAS CANCELED PER TXN VANSAN 10-7-78 DATED 841007.						
CORRECTIVE ACTION-NONE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS	FAR-LV-AS-24-4828 FAR-LV-AS-24-4828 FAR-LV-AS-24-4828	FAR 87-03900-39	840981	FACTORY	NO	SERVONIC NO L-64
<p>FAILURE MODE-STRUCTURAL. DURING FINAL CHECKOUT, THE TRANSDUCER OUTPUT EXCEEDED THE SPECIFIED VALUE. EXAMINATION REVEALED DISTORTION OF THE HIGH PRESSURE BELLOW, CAUSED BY OVERLOADING.</p> <p>CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IT WAS REQUESTED THAT APPROPRIATE PERSONNEL BE MADE AWARE OF THE RESULTS OF THE ANALYSIS TO PREVENT RECURRENCE OF THIS TYPE OF PROBLEM.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCERS	SLV-SD-24-4839-F SLV-SD-24-4839-F	FAR 7-01933-9	840981	WTR 1-4	YES	ROSEMOUNT NO 1496
<p>FAILURE MODE-CONTAMINATION. THE TRANSDUCER HAD AN OPEN CIRCUIT BETWEEN PINS D AND E. FAILURE WAS CAUSED BY AN UNKNOWN OBJECT PASSING THROUGH THE PROTECTIVE CAGE ORIFICE PRESSING AGAINST OR HITTING THE WIRE, AND SEPARATING THE WIRE AT ITS NEAREST POINT.</p> <p>CORRECTIVE ACTION-TWA, YANSAI 11-27-165, WAS RECEIVED FROM FIELD PERSONNEL STATING THAT MEMO 838-1-1033 HAD BEEN RECEIVED AND WAS DISTRIBUTED TO APPROPRIATE PERSONNEL.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCERS	A-92-24-4833F A-92-24-4833F	FAR 89-01003-39	3020	FACTORY	YES	BOURNS NO
<p>FAILURE MODE-OUT OF TOLERANCE. UNIT REJECTED FOR THE STATIC ERROR BAND BEING OUT OF TOLERANCE. FAILURE CAUSED BY INTERNAL PRESSURE. CAUSING OUTPUT TO BE SHIFTED. SOURCE OF PRESSURE UNKNOWN.</p> <p>CORRECTIVE ACTION-VENDOR INFORMED OF FINDINGS.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS	FAT-LV-9D-24-4821-F FAT-LV-9D-24-4821-F	FAR 87-01843-9	840981	WTR	NO	BOURNS NO 48011-B-150-75
<p>FAILURE MODE-STRUCTURAL. THE TRANSDUCER HAD BEEN REPORTED AS HAVING AN OPEN CIRCUIT. ACTUALLY IT HAD BEEN PHYSICALLY DAMAGED DURING INSTALLATION, AND WAS IMPROPERLY DISPOSITIONED FOR FAILURE ANALYSIS.</p> <p>CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. FIELD PERSONNEL WERE REQUESTED TO HANDLE TRANSDUCERS MORE CAREFULLY.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
Y.							99564
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-COMMUTATOR ERS	SLV-99-24-4783-C	PAR 89-13837-888	174D 640816	FACTORY	YES	BENDIX NO	993714
FAILURE MODE-ERRATIC OPERATION. THERE WERE MULTIPLE DISCREPANCIES IN THIS PACKAGE, INCLUDING-CHANNEL 13 WAS NOISY O N ALL SEGMENTS. CHANNEL A HAD A VARIABLE NEGATIVE RATE, AND AT PERCENT INFORMATION BANDWIDTH NOISE LEVEL. COMMUTATOR SPEED WAS 41 REVOLUTIONS PER SECOND. WHEREAS 30 RPS WAS EXPECTED.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR DIODE ERS	SLV-99-24-4838-F	PAR 87-01807-937	640816	FACTORY	YES	BENDIX PACIFIC NO 313133-AAA	993829
FAILURE MODE-ELECTRICAL SHORT. OUTPUT FREQUENCY WAS HIGH AND OUTPUT AMPLITUDE WAS LOW. THIS WAS DUE TO GOLD FLAKING FROM DIODE CR-311B42A, MOTOROLA) AND SHORTING.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	SLV-99-24-4827P	PAR 89-01003-33	7102 640816	WTR	YES	BOURNS NO	992807
FAILURE MODE-UNIT REJECTED FOR ERRATIC OPERATION. FAILURE CONFIRMED, BUT EXACT CAUSE COULD NOT BE DETERMINED. IT HA D THE CHARACTERISTICS OF A RESISTIVE FILM OR PARTICLE ON THE WINDING.							
CORRECTIVE ACTION-CAUSE NOT DETERMINED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-99-24-4783-F	PAR 89-11116-1	640816	FACTORY	YES	SPECTROL NO	
FAILURE MODE-ELECTRICAL OPEN. POTENTIOMETER R-8 WOULD NOT PROPERLY CONTROL OUTPUT VOLTAGE. FAILURE WAS CAUSED BY PO TENTIOMETER R-8 BEING ELECTRICALLY OPEN. POTENTIOMETER R-8 WAS DAMAGED DURING ASSEMBLY AT THE VENDORS FACTORY.							
CORRECTIVE ACTION-SPECTROL MODEL 60 106 KILO-HOMS SIZE (PN 89-78893-11) WAS DECLARED INACTIVE FOR NEW DESIGN AFTER							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
FEB. 15, 1968.							098630
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC REGULATOR ASSEMBLY CIRCUIT BOARD ERS	LV-99-24-4797	FAR 89-11117-1	640911	FACTORY	YES NO		091824
FAILURE MODE-SHORT (ELECT). THE OUTPUT VOLTAGES WERE MEASURED TO BE 75.26 AND 6.79 VOLTS AC. A RESISTANCE OF 0.5 OHM WAS MEASURED BETWEEN TERMINALS 1 AND 6. THE RESISTANCE SHOULD READ OPEN. BOTH FAILURE SYMPTOMS WERE CAUSED BY A SOLDER SPLASH SHORTING TWO PRINTED CIRCUIT LAMINATES TOGETHER.							
CORRECTIVE ACTION-MANUFACTURING PROCESS CONTROL PERSONNEL WERE SHOWN THE FAILURE AND ITS CAUSE. THEY WERE CAUTIONED TO IMPROVE QUALITY CONTROL							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-99-24-4823-F	FAR 89-11118-1	640910	FACTORY	YES SPECTROL YES MOORE		093770
FAILURE MODE-ELECTRICAL OPEN. DEMODULATOR 89-11118-3 HAD A FLUCTUATING 1 IN OUTPUT AS THE UNIT WARMED UP. DUE TO AN INTERMITTENT OPEN IN WIRE WOUND POTENTIOMETER IN AS DETECTOR 89-11118. (ADDITIONAL FAILURES DOCUMENTED IN FAR).							
CORRECTIVE ACTION-THE POTENTIOMETER MANUFACTURER- (1) FOUND AND CORRECTED A FAULTY FIXTURE (2) INITIATED A 100 PERCENT HIGH TEMPERATURE INSPECTION. ECP 3434 WAS APPROVED FOR AN IMPROVED POTENTIOMETER. SPECTROL MODEL 60 POTENTIOMETERS WERE REMOVED FROM THE PERFORMED PARTS LIST AND THE 100.000 OHM SIZE WAS DECLARED INACTIVE FOR NEW DESIGN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-DIODE ERS	SLV-99-24-4823-F	FAR 89-11118-1	640910	FACTORY	YES TEXAS INSTR. YES 6130		093771
FAILURE MODE-ELECTRICAL OPEN. DEMODULATOR 89-11118-3 HAD A FLUCTUATION IN OUTPUT AS THE UNIT WARMED UP. MAY HAVE BEEN DUE TO AN INTERMITTENT OPEN IN THE A-3 CR-3 DIODE IN AS DETECTOR 89-11118. (ADDITIONAL FAILURES DOCUMENTED IN FAR).							
CORRECTIVE ACTION-INSPECTION/SUPERVISION NOTIFIED MANUFACTURING PERSONNEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-99-24-4823-F	FAR 89-11118-1	640910	FACTORY	YES SPECTROL NO MOORE		
FAILURE MODE-ELECTRICAL OPEN. DEMODULATOR 89-11118-3 INDICATED A VARIATION IN OUTPUT OF SUBCARRIER OSCILLATOR "HANN EL-A SEGMENT 89. THIS WAS DUE TO AN OPEN WIRE WOUND POTENTIOMETER (R8) IN THE DETECTOR.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI DIF	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-THE POTENTIOMETER MANUFACTURER. (1) FOUND AND CORRECTED A FAULTY FIXTURE, (2) INITIATED A 100 PER CENT HIGH TEMPERATURE INSPECTION, ECP 3434 WAS APPROVED FOR AN IMPROVED POTENTIOMETER. SPECTROL MODEL 60 POTENTIOMETER WAS REMOVED FROM THE PERFORMED PARTS LIST AND THE 100000 OHM SIZE WAS DECLARED INACTIVE FOR NEW DESIGN.						000433
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-LV-99-24-4838-7 FAR 37-01243-7	FAR 37-01243-7	640910	FACTORY	YES	BURNS NO 42011-0-100-75 2	000642
FAILURE MODE-OUT OF TOLERANCE. THE PART WAS REJECTED IN THE STANDARDS LAB BECAUSE THE STATIC ERROR BAND HAD BEEN EXCEEDED. FURTHER TESTS AND EXAMINATION REVEALED NOTHING AS A CAUSE OF THE FAILURE.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. NO CORRECTIVE ACTION COULD BE TAKEN BECAUSE THE REASON FOR FAILURE WAS NOT DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC REGULATOR, TRANSISTOR ERS	SLV-99-24-4923-F FAR 69-11117-1	FAR 69-11117-1	640910	FACTORY	YES	TEXAS INSTR. YES	000660
FAILURE MODE-ELECTRICAL OPEN. DEMODULATOR 69-11110-5 HAD A FLUCTUATION IN OUTPUT AS UNIT WARMED UP. POSSIBLY DUE TO 2N330 TRANSISTOR (02) IN A1 VOLTAGE REGULATOR 69-11117. (ADDITIONAL FAILURES DOCUMENTED IN FAR).							
CORRECTIVE ACTION-INSPECTION SUPERVISION NOTIFIED MANUFACTURING PERSONNEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-RESISTORS ERS	SLV-99-24-4709F FAR 69-11100-013	FAR 69-11100-013	7103	FACTORY	YES	BENDIX NO	000713
FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE NOISE OSCILLATION WAS NOTED ON CHANNELS 3 THROUGH 9. CHANGING THE VOLTAGE DIVIDER FIXED-BIAS RESISTORS TO BIAS VOLTAGE FOR THE FREQUENCY-MULTIPLYING VARACTOR DIODES WAS REDUCED ABOUT 3 PERCENT. ELIMINATED ALL NOISE OSCILLATIONS. FAILURE WAS CAUSED BY TOO HIGH A BIAS VOLTAGE.							
CORRECTIVE ACTION-A DESIGN REVIEW WILL BE MADE BY THE MANUFACTURER IN THE NEAR FUTURE TO DETERMINE AREAS FOR POSSIBLE IMPROVEMENT.							

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SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE DIP	TIME DIP	OTH	VENDOR PART NO
INSTRUMENTATION-A/B	LV-49-24-4776-C	FAR	1810	FACTORY	YES	SENDIX
TELEMETRY SET AND TRANSDUC OSCILLATOR		7-01408-031	040909		NO	1041992-1-S
ERS						
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A SIGNAL FREQUENCY WAS REPORTED TEN PERCENT OUT OF BAND.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED BY SLV RELIABILITY CONTROL.						
INSTRUMENTATION-A/B	CT-99-24-3198	FAR	040909	FACTORY	YES	SENDIX
TELEMETRY SET AND TRANSDUC POWER SUPPLY		27-12991-3			NO	1046173-2-A
ERS						
FAILURE MODE-OUT OF SPECIFICATION. THIS POWER SUPPLY WAS REJECTED WHEN ITS SUBCARRIER-OSCILLATOR PLATE-VOLTAGE MONI TOR POINT INDICATED PLUS 1.480 VOLTS DC. THE VOLTAGE REQUIREMENT IS PLUS 1.411 TO PLUS 1.489 VOLTS DC. THIS WAS DISC OVERED DURING TESTING OF THE POWER SUPPLY NEXT ASSEMBLY P/N 81-15937-033 PER COP 85-330-87.8. REPORTED FAILURE WAS N OT VERIFIED. SINCE THE NEXT ASSEMBLY TELEMETRY WAS NOT RECEIVED FOR ANALYSIS, NO REASON COULD BE DISCOVERED TO EXPLA IN THE REJECTION OF THIS POWER SUPPLY.						
CORRECTIVE ACTION-IT IS RECOMMENDED TELEMETRY TOP PACKAGE BE SENT FOR FAILURE ANALYSIS WHENEVER POWER SUPPLY FAILUR ES ARE INVOLVED. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B	A-99-24-48047	FAR	040903	FACTORY	YES	APPLIED COMPO
TELEMETRY SL. AND TRANSDUC LIMITER FILTER, INDUCTOR		27-01895-3			NO	ENTS
ERS						
FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE WAS 0.0145 VOLTS AC. A MINIMUM OF 0.020 VOLTS AC IS REQUIRED. LOW OUT PUT WAS DETERMINED TO BE DUE TO A CHANGE IN INDUCTANCE OF THE COILS. THIS WAS CUE TO IMPROPER DURING AFTER POTTING. N /A 27-12682-3 FILTER.						
CORRECTIVE ACTION-BANDPASS FILTERS IN STOCK AND SPARES WERE CURED AND RETESTED. THE MANUFACTURER OF THE COIL CHANGE D MANUFACTURING PROCESSES TO INCLUDE CURING AT 160 DEGREES F.						
INSTRUMENTATION-A/B	89C-2057	UTP-PRT	040902	60/C	YES	LEWIS
TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER		7-01635-5			NO	568348
ERS						
FAILURE MODE - CONTAMINATION. THE OBSERVED INSULATION RESISTANCE WAS 4 MEGOHMS AT 200 VDC REQUIRED RESISTANCE IS 20 MEGOHMS. APPEARS TO BE DUE TO EFFECT OF MOISTURE ON MANGANESE DIOXIDE INSULATION. A RECHECK ON 9-10-64 SHOWED AN INSU LATION RESISTANCE OF 12 MEGOHMS. THE UNIT WAS CLEANED AND THE INSULATION RESISTANCE OF ELEMENT -B TO PIN -P WAS MEAS URED AT 8 MEGOHMS. THE REQUIREMENT IS 20 MEGOHMS MINIMUM. 9/N 494C486.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-40/A STOCK OF THESE TRANSDUCERS RETURNED TO VENDOR /LEWIS/ FOR RE WORK.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BANDPASS FILTER ERS	A-98-24-4788-C A-98-24-4788-C BANDPASS FILTER ERS	FAR 87-01898-9	640801	FACTORY	YES NO	YES APPLIED COMPOUND NO ENTS AC18030-3
FAILURE MODE-OUT OF TOLERANCE. OUTPUT WAS GREATER THAN THE MAXIMUM ALLOWED. FAILURE ANALYSIS OF THESE BANDPASS FILTERS WAS CANCELED BECAUSE PREVIOUS ANALYSIS SHOWED FAILURE IN THIS MODE WAS CAUSED BY IMPROPERLY CURED INDUCTORS.						
CORRECTIVE ACTION-60/C ISSUED SURVEY INSTRUCTION 118-64.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	BLV-99-24-4788-F BLV-99-24-4788-F DETECTOR-POTENTIOMETER ERS	FAR 89-11118-1	640831	FACTORY	YES NO	YES SPECTROL NO MO080
FAILURE MODE-ELECTRICAL OPEN. OUTPUT COULD NOT BE ADJUSTED TO THE SPECIFICATION REQUIREMENT OF 5.000 PLUS OR MINUS 0.005 VOLTS DC. FAILURE WAS CAUSED BY POTENTIOMETER R-6 OPENING ELECTRICALLY WHEN THE DETECTOR WARMED TO THE NORMAL OPERATING TEMPERATURE.						
CORRECTIVE ACTION-SPECTROL MODEL 60, 100 KILOHM SIZE (PM68-73283.011) WAS DECLARED INACTIVE FOR NEW DESIGN AFTER FEBRUARY 29, 1983.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC WIRING ERS	GOA-APZ64-048/D1-801-00-36 GOA-APZ64-048/D1-801-00-36 WIRING ERS	FLIGHT	36F 640831	WTR	YES NO	
FAILURE MODE-PREMIATURE OPERATION. START OF THE TIME TRANSDUCER TELEMETRY (TTT) SYSTEM WAS PREMATURELY INITIATED DUE TO ERRONEOUS WIRING TO THE BECO ENABLE INSTEAD OF THE BECO SIGNAL.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. DUE TO THE ERRONEOUS START SIGNAL, THE DESIRED TELEMETRY DATA WAS NOT OBTAINED DURING THE TELEMETRY BLACKOUT ASSOCIATED WITH BOOSTER JETTISON.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-PROCEDURES WERE INITIATED TO ENSURE PROPER WIRING TO START SIGNAL.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	LV-99-24-4813F TRANSDUCER	FAR 7-01738-8	393D 640826	FACTORY	YES NO	992804
FAILURE MODE-OUT OF TOLERANCE. UNIT REJECTED FOR ERRATIC OPERATION. FAILURE CAUSED BY UNBALANCED TENSION ON THE DOUBLE WIPER.						
CORRECTIVE ACTION-IN JUNE 1963 THE VENDOR STARTED 100 PERCENT WIPER TENSION INSPECTION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POSITION TRANSDUCER ERS	FAR-SLV-99-24-4804 TRANSDUCER	FAR 27-01616-7	7104 640826	FACTORY	YES NO	99121
FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE TRANSDUCER REPORTEDLY FAILED DURING ADJUSTMENT ON THE VEHICLE. IT COULD NOT BE ADJUSTED. AND AN OPEN WAS REPORTED. FUNCTIONAL TESTS ON THE TRANSDUCER REVEALED NO DEFICIENCIES. FAILURE TO ADJUST IS ATTRIBUTED TO THE TRANSDUCER BEING IN THE BUSED REGION. THE OPEN CIRCUIT WAS PROBABLY REPORTED WHEN THE TRANSDUCER WAS IN THE ZERO OUTPUT PORTION OF ITS RANGE.						
CORRECTIVE ACTION-THE FAILURE HAS NOT CONFIRMED. NO CORRECTIVE ACTION WAS TAKEN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	SLV-99-24-4831-F OSCILLATOR	FAR 27-01607-115	640827	FACTORY	YES NO	99323D
FAILURE MODE-OUT OF TOLERANCE. FREQUENCIES OF THE OSCILLATOR WERE LOWER THAN SPECIFIED. BY ADJUSTING FREQUENCY AND SENSITIVITY CONTROL THE FREQUENCIES WERE BROUGHT WITHIN SPECIFICATION. 50/C PERSONNEL ARE NOT PERMITTED TO ADJUST THESE CONTROLS.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	SLV-99-24-4801F TRANSDUCER	FAR 7-01633-5	640826	FACTORY	YES NO	992808
FAILURE MODE-UNIT REJECTED FOR OUT-OF-TOLERANCE. (LOW) INSULATION RESISTANCE. FAILURE NOT CONFIRMED.						
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	PAR-LV-98-24-4787-F PAR 87-81886-89	FAR 87-81886-89	353-D 640886	2-3	YES NO	SERVONIC M-172-2
990840						
FAILURE MODE-OUT OF TOLERANCE. DURING A DPL TEST, THE PART WAS READING LOW IN THE LOWER PORTION OF ITS RANGE. EXAMINATION REVEALED THAT THE RESISTIVE ELEMENT WAS WORN IN THE AFFECTED RANGE. FOR A RELATED CASE, SEE PAR-LV-98-24-4844-F.						
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. AS A RESULT OF THIS PROBLEM, THE TRANSDUCER CALIBRATION CYCLE WAS CHANGED TO A MORE FREQUENT VALIDATION INSPECTION THAN BEFORE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	PET-TP-2-0264.1A PET-TP-2-0264.1A	UTP-PET 87-01845-9	640881	FACTORY	YES NO	COLVIN 401-A-13-78
990761						
FAILURE MODE-CONTAMINATION. DURING X-AXIS VIBRATION, THE UNIT EXHIBITED AN OUT OF TOLERANCE OUTPUT WITH SPIKING AND SHIFTING. THE FAILURE WAS CONFIRMED DUE TO A NON-CONDUCTIVE PARTICLE ATTACHED ON THE ELEMENT AT THE 30 PERCENT POINT.						
CORRECTIVE ACTION-60/C RETURNED PET LOT 2 TO THE VENDOR. ALL TRANSDUCERS OF THIS P/M AND VENDOR WERE PURGED FROM STOCK AND RE-TESTED TO SPECIAL VIBRATION TESTS PRIOR TO USE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	SLV-A9-24-4719-F SLV-A9-24-4719-F	FAR 87-01252-35	7102 640819	FACTORY	NO NO	MIANCKO 34103-81
990840						
FAILURE MODE-OUT OF SPECIFICATION. TRANSDUCER WAS FOUND TO BE IN ERROR. IT WAS REMOVED AND CALIBRATED. MAXIMUM ERROR WAS MINUS 20 PERCENT. IT WAS CONCLUDED THAT IT HAD BEEN OVERPRESSURIZED OR DAMAGED BY SHOCK.						
CORRECTIVE ACTION-FINAL ASSEMBLY, MISSILE CHECKOUT, RECEIVING-INSPECTION, AND STANDARDS LABORATORY PERSONNEL WERE INSTRUCTED TO TAKE GREAT CARE IN HANDLING, INSTALLING AND TESTING TRANSDUCERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR ERS	FT6481/P2-4CO-01-188 FT6481/P2-4CO-01-188	COMPOSITE-B FACT 640819	193D 640819	12	YES NO	1098489-33
990840						
FAILURE MODE-ERRATIC OPERATION. 2.5 RPS COMMUNICATOR WAS CHANGING SPEED BETWEEN 2.1 AND 2.4 RPS. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTM	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-CHANGED COMMUTATOR MOTOR 'N RF 1.						
INSTRUMENTATION-A/B FAR-LV-99-24-4763-7 FAR 640818 FACTORY YES BORG-WARNER						
TELEMETRY SET AND TRANSDUC ACCELEROMETER TRANSDUCER 7-01413-8 640817 NO 9747-8						
ERS						
FAILURE MODE-OUT OF TOLERANCE. THE OUTPUT FREQUENCY OF THIS VIBRATING WIRE TRANSDUCER WAS BELOW THE SPECIFIED VALUE. THE CAUSE OF FAILURE WAS NOT ESTABLISHED, BUT COULD HAVE BEEN THE RESULT OF AGING EFFECTS OF THE VIBRATING WIRE, OR A CHANGE IN SUPPORT DIMENSIONS, OR EXCESSIVE CROSS-AXIS ACCELERATION.						
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. SURVEY INSTRUCTION 111-84 DATED 640914 REMOVED ACCELEROMETERS BELOW 9/11 FROM STOCK STORES, AND MISSILES FOR INSPECTION AND TESTING.						
INSTRUMENTATION-A/B FAR-SLV-A9-24-4803 FAR 7101 FACTORY YES SERVOMIC						
TELEMETRY SET AND TRANSDUC POSITION TRANSDUCER 89-01005-1 640817 NO 5041-0101						
ERS						
FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE TRANSDUCER WAS REJECTED BECAUSE THE OUTPUT WAS NOT THE EXPECTED VALUE. CYCLING TESTS REVEALED CHANGES IN RESISTANCE, WHICH WAS CAUSED BY WEAR ON THE RESISTIVE ELEMENT.						
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. FAR SLV-A9-24-8407 RECOMMENDED THAT THESE TRANSDUCERS NOT BE INSTALLED UNTIL COMPOSITE TESTING, TO PREVENT PREMATURE WEAR ON THE RESISTIVE ELEMENT.						
INSTRUMENTATION-A/B CT-98-24-3120 FAR 640117 ETR YES FIFTH DIMENSION						
TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR 27-01897-8 640814 NO N						
ERS						
FAILURE MODE-ERRATIC OPERATION. COMMUTATION RATE VARIED FROM 2.43 TO 2.47 RPS. FAILURE WAS APPARENTLY CAUSED BY THE BENT MOTOR ROTOR. IN ADDITION, A PIECE OF WIRE WAS SHORTING PINS 13, 14, 15, 16, AND 17.						
CORRECTIVE ACTION-VENDOR AND CONVAIR PERSONNEL WERE INFORMED OF THE DEFICIENCIES FOUND DURING ANALYSIS.						
INSTRUMENTATION-A/B A-A9-24-4761-7 FAR 3000 FACTORY YES						
TELEMETRY SET AND TRANSDUC T.C.N. CANISTER-RESISTOR 27-12768-011 640814 NO						
ERS						
FAILURE MODE-STRUCTURAL. CHANNEL 11, SEGMENT 29, WAS FLUCTUATING BETWEEN 43 PERCENT INFORMATION BANDWIDTH (IBW) AND 63 PERCENT IBW. THIS SEGMENT SHOULD BE 100 PERCENT IBW. FAILURE WAS CAUSED BY INSUFFICIENT SOLDER ON TERMINAL IN PR						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	INTED CIRCUIT BOARD LOCATION L-1. THERMAL FLEXING BETWEEN THE RESISTOR LEAD AND ITS TERMINAL CAUSED THE BRIDGE CIRCUIT TO INCREASE RESISTANCE AND LOWER THE PERCENTAGE ISW USED BY THE SENSOR.						090101
	CORRECTIVE ACTION-ALL PERSONNEL NOW INVOLVED IN THE BOLDERING OF THIS PRINTED CIRCUIT BOARD MUST BE CERTIFIED AND SUCCESSFULLY COMPLETE THE NASA APPROVED BOLDERING SCHOOL COURSE.						
INSTRUMENTATION-A/B	FAR-LV-99-24-4780 TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	FAR 97-93900-033	640811	FACTORY	YES	SERVONIC NO D64	090236
	FAILURE MODE-STRUCTURAL. DURING LAB TESTS, THE TRANSDUCER WAS REJECTED BECAUSE OF SPIKING ON THE RECORD. DURING DIS ASSEMBLY, THE WIPER ARM WAS BENT. AFTER STRAIGHTENING IT, THE SPIKING WAS ELIMINATED. PROBABLE CAUSE OF FAILURE WAS TOO LIGHT A PRESSURE OF WIPER ARM ON THE MANDEREL.						
	CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. NO CORRECTIVE ACTION WAS TAKEN BECAUSE THE WIPER ARM DAMAGE PRECLUDED VERIFICATION OF THE CAUSE OF FAILURE.						
INSTRUMENTATION-A/B	LV-99-24-4908F TELEMETRY SET AND TRANSDUC TRANSDUCER	ZAR 7-01731-3	1960 640811	FACTORY	YES	BOURNS NO	090289
	FAILURE MODE-UNIT REJECTED FOR ERRATIC OPERATION.						
	CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.						
INSTRUMENTATION-A/B	FR99A2176-3 TELEMETRY SET AND TRANSDUC TLM CANISTER	UTP-ETT 69-11100-801	640810	FACTORY	6D/C	69-11100-801	090319
	FAILURE MODE-FAIL DURING OPERATION. TEST SPECIMEN AT 90 DEGREES F TEMPERATURE AND ETT SINE/RANDOM VIBRATION LEVEL 1 IN Y-AXIS. THE NEGATIVE 1.25 VDC REFERENCE FOR COMMUTATED CHANNELS 11, 13 AND A WAS MISSING IN THE RECORDED PROOF CYC LE 8 OF THE 21ST ETT VIBRATION SHEET. CAUSED BY MOISTURE CONDENSATION ON INSIDE SURFACE AND COMPONENTS CONTRIBUTING TO LOSS OF NEGATIVE 1.25 VDC REFERENCE FOR CHANNELS 11, 13 AND A.						
	CORRECTIVE ACTION-ADDITIONAL TEMPERATURE CYCLES FOR FIRST ETT SPECIMEN MODIFIED TO THE LATEST CONFIGURATION. AGREED BY 60/A AND AIR FORCE FOR MOISTURE PROOFING (CIC 87113). REF. FR-984-B-370.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER-PRESSURE ERS	CT-PB-248-3193	FAR 99-01107-03	6A 640806	LERC	YES NO	COLVIN 401-6-4-75	990399
FAILURE MODE-ERRATIC OPERATION. TRANSDUCER EXHIBITED ERRATIC OUTPUT DURING CALIBRATION AFTER BEING REMOVED FROM THE VEHICLE. FAILURE COULD NOT BE CONFIRMED DUE TO THE AS- RECEIVED CONDITION OF THE TRANSDUCER. HOWEVER, ERRATIC OPERATION COULD HAVE BEEN CAUSED BY THE TRANSDUCER CASE NOT BEING GROUNDED WHICH WOULD RESULT IN PICKUP OF NOISE AND EXTRA RECUS SIGNALS, CAUSING CROSSTALK. FAILURE OCCURRED ON CENTAUR TEST VEHICLE 6A.							
CORRECTIVE ACTION-REQUEST VENDOR TO IMPROVE TRANSDUCER CASE GROUNING METHOD TO ASSURE PROPER GROUND TO NEXT ASSEMBLY INSTALLATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER-CONNECTOR ERS	27-3603	UTP-PET 7-01633-8	640807	60/C	YES NO	LEWIS/BENDIX 568348	991034
FAILURE MODE-CONTAMINATION. THE PLATING ON THE ELECTRICAL CONNECTOR HAS CHIPPED AWAY IN TWO PLACES. APPEARS TO BE CAUSED BY CORROSION OR OTHER CONTAMINATION ON COPPER PLATING PRIOR TO SILVER PLATING.							
CORRECTIVE ACTION-REQUESTED VENDOR OF TRANSDUCER /LEWIS/ TO TAKE CORRECTIVE ACTION. VENDOR WILL IMPROVE INSPECTION, ESPECIALLY RECEIVING INSPECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	LV-99-24-4748-C	FAR 99-19937	640805	FACTORY	YES NO	BENDIX	992846
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. CHANNEL E WAS FOUND TO BE OUT OF SPECIFICATIONS. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-8LV-A9-24-4770-F	FAR 7-01797-9	640805	FACTORY	YES NO	SCRYMONIC	
FAILURE MODE-ELECTRICAL OPEN. AN OPEN CIRCUIT WAS FOUND BETWEEN TWO PINS. EXAMINATION REVEALED BENT AND BROKEN WIRE S AT THE PLUG, CAUSED BY CARELESS HANDLING.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. FACTORY PERSONNEL WERE INFORMED OF THE FAILURE AND WERE CAUTIONED TO HANDLE PARTS CAREFULLY.							890893
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4753-C TELEMETRY SET AND TRANSDUC ERS	FAR 58-13837-843	640804	FACTORY	YES NO	YES BENDIX NO	893856
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A WAS DISCOVERED TO BE OUT OF SPECIFICATIONS. FAILURE ANALYSIS OF THIS PACKAGE WAS WAIVED BY SLV RELIABILITY CONTROL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4751-C TELEMETRY SET AND TRANSDUC ERS	FAR 58-13837-843	640803	FACTORY	YES NO	YES BENDIX NO	893852
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 13 WAS DISCOVERED TO BE OUT OF THE FREQUENCY BAND TOLERANCES. FAILURE ANALYSIS OF THIS PACKAGE WAS WAIVED BY SLV RELIABILITY CONTROL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AGU3-001-19/FC-CO-01-0502-007 TELEMETRY SET AND TRANSDUC ERS	COMPOSITE-FACTORY 58-13837-843	151D 640730	FACTORY	YES NO	YES BENDIX NO	893376
FAILURE MODE-FAIL DURING OPERATION-TELEMETRY NO.1. CHANNEL 13 INDICATED MASTER PULSE VARIATIONS UP TO 10 PCT. IDW. AT TIMES THE MASTER PULSE EXCEEDED THE LOW FREQUENCY Bandedge. EXACT CAUSE UNKNOWN.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RETESTING WAS REQUIRED.							
CORRECTIVE ACTION-THE TELEMETRY PACKAGE WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4792-7 TELEMETRY SET AND TRANSDUC ERS	FAR 27-01836-81	640730	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-469	
FAILURE MODE-OUT OF TOLERANCE. COMMUTATION SPEED WAS FOUND TO BE 4.17 RPS. THE SLOW MOTOR (PN 61A109) USED IN THIS COMMUTATOR HAS TOO SMALL A TORQUE OUTPUT TO COMPENSATE FOR NORMAL SMALL LOAD CHANGES. THESE LOAD CHANGES ARE DUE TO THERMAL EFFECTS ON BEARINGS, GEARS, ETCETERA.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	FRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE.							891683
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	89C1849	UTP-PAY 89-01003-13	640789	60/C	YES	BOURNS NO 3004806304	891121
FAILURE MODE-OUT OF SPECIFICATION. DURING THE PROOF CYCLE BEFORE AND AFTER THE RANDOM/SINE VIBRATION TEST. MAXIMUM ERRORS WERE -2.08 AND -2.11 PERCENT RESPECTIVELY. ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT. SPIRING WAS OBSERVED DURING THE VIBRATION TEST. ANALYSIS REVEALED A SLIGHT KINK IN THE WIRE CONNECTING BELLOW TO WIPER BUT THIS DID NOT APPEAR TO BE THE CAUSE OF FAILURE. S/N 309 0309.							
CORRECTIVE ACTION-NONE.							895745
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER POWER SUPPLY-CAPACITOR ERS	8LV-99-24-4614F	FAR 55-13540-903	640788	FACTORY	YES NO		
FAILURE MODE-OPEN-ELECT. NO VOLTAGE WAS PRESENT AT ANY OF THE POWER SUPPLY OUTPUTS. THIS WAS DUE TO FAULTY BANDING OF A LEAD TO SOLDER AT THE JOINT OF THIS LEAD TO THE PLATE OF CAPACITOR C-3. THIS CAPACITOR IS IN A CHOPPER CIRCUIT.							
CORRECTIVE ACTION-ECP 3434 WAS APPROVED PROVIDING FOR REPLACEMENT OF EXISTING ELECTRONIC PARTS WITH SPECIAL QUALITY RESISTORS, CAPACITORS, TRANSISTOR RELAYS, DIODES, ETC.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	LV-99-24-4750-C	FAR 55-13580-011	640788	FACTORY	YES	BENDIX NO	893651
FAILURE MODE-FAILED DURING OPERATION. COMMUTATOR SEGMENTS WERE FOUND TO BE UNEVEN, THEREBY CAUSING EXCESSIVE BRUSH WEAR. FAILURE ANALYSIS OF THE COMMUTATOR WAS WAIVED BY SLV RELIABILITY CONTROL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER, FUSE ERS	SLV-AS-24-4781-F	FAR 89-11300-1	7103	FACTORY	NO NO		
FAILURE MODE-ELECTRICAL OPEN. MEAS A 891 D WAS NOT RECEIVING 28 VOLT EXCITATION FROM JS. PIN C OF TELEMETER. FAILURE							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
E CAUSED BY BLOWN FUSE. FUSE BLOWN BY PRODUCTION PERSONNEL WHILE TROUBLE SHOOTING OF ASSOCIATED TRANSDUCER.							001901
CORRECTIVE ACTION-PROCEDURE CHANGED TO REDUCE POSSIBILITY OF SHORTING TELEPAK FUSES WITH CHECKOUT EQUIPMENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR-WIRING ERS	A-99-24-4738-F	FAR 27-12367-S	640727	FACTORY	YES NO		001599
FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE COULD NOT BE ADJUSTED TO THE REQUIRED 0.000 PLUS OR MINUS 0.005 VOLT DC. DEMODULATOR FAILURE WAS CAUSED BY MISWIRING OF THE INPUT SIGNAL LEAD AT TERMINAL 1 OF INDUCTOR L-1.							
CORRECTIVE ACTION-INSPECTION PROCEDURES PRIOR TO THE FIRST TEST WERE CLARIFIED. SHOP AND INSPECTION PERSONNEL WERE INSTRUCTED TO EXERCISE CAUTION IN RINOUT AND TEST PROCEDURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC EVENTS SIGNAL MODULE-WIRING ERS	A-99-24-4768-P	FAR 27-12374-803	640723	FACTORY	YES NO		004180
FAILURE MODE-ELECTRICAL SHORT. OUTPUT VOLTAGES WERE VERY LOW. THE FAILURE WAS NOT CONFIRMED AT THE MODULE LEVEL. WHILE IN THE PACKAGE, AN INTERNAL SHORT CIRCUIT TO PIN 8 WOULD LOAD THE DESTRUCT INPUT SUFFICIENTLY TO CAUSE THE FAILURE REPORTED. THE SHORT CIRCUIT WAS CAUSED BY CLOSE PROXIMITY OF THE COMPONENTS. DURING POTTING THESE COMPONENTS CAN BREAK THROUGH THE INSULATION AND CAUSE ANY NUMBER OF SHORT CIRCUITS.							
CORRECTIVE ACTION-THE RESPONSIBLE CONVAIR DESIGN GROUP WAS NOTIFIED OF THE FAILURE AND ITS CAUSE. THE GROUP WAS ASKED TO INVESTIGATE POSSIBLE PACKAGING ADJUSTMENTS TO ALLEVIATE THE CLOSE COMPRESSION OF THE COMPONENTS WITHIN THE UNIT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	27-3603	UTP-PET 7-01633-S	640723	GO/C	YES NO	LEWIS 568348	001177
FAILURE MODE-OUT OF SPECIFICATION. INSULATION RESISTANCE BETWEEN PIN A AND THE CASE AND BETWEEN PIN B AND THE CASE IS ERRATIC AND IN THE RANGE OF 0.8 MEGOHM.							
CORRECTIVE ACTION-UNKNOWN.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	LV-99-24-4723-C	FAR 7-01498-839	1740 840728	FACTORY	YES NO	BENDIX 1041982-3-K	891800
FAILURE MODE-OUT OF TOLERANCE. OUTPUT FREQ. COULD NOT BE ADJUSTED TO CORRECT VALVE. FAILURE DOCUMENTED ON IR 997822 PR P-6084-3P, S/N 311692 (ALSO ON FAR LV-99-24-4743C AGAINST 1810).							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	60A/BKF64-029/P3-402-00-216 COUNTDOWN 27-31941-933	2180 840717	ETR-12 -8900	YES NO	BENDIX		899612
FAILURE MODE-OUT OF TOLERANCE. SEGMENTS 33 AND 35 OF RF1 CH14 ELECTRICALLY CONNECTED.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. INTERACTION BETWEEN CH14 MEASUREMENTS (23E AND 84C) WAS NOTED DURING FIRST 6 GUIDANCE COMMAND TEST (REF. AAG4-0043).							
VEHICLE EFFECT-COUNTDOWN DELAYED. PICKUP FROM PLANNED HOLD AT T-95 WAS DELAYED FOR APPROXIMATELY 54 MINUTES DUE TO CHANGE.							
CORRECTIVE ACTION-TELEMETRY RF CANISTER REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	FAR-LV-A9-24-4728-F FAR 7-01884-23	1510 840717	FACTORY	YES NO	LEVIS		890879
FAILURE MODE-STRUCTURAL. DURING FINAL CHECKOUT, ELECTRICAL SHORTS AND OPENS WERE INDICATED. EXAMINATION REVEALED WI RES BROKEN MECHANICALLY DUE TO MISHANDLING.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. PERSONNEL OF APPROPRIATE DEPARTMENTS WERE INFORMED OF THE PROBLEM AND THE CONSEQUENCES OF MISHANDLING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	LV-A9-24-471 FAR 33-13337-843	1510 840715	FACTORY	YES NO	BENDIX		891802
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A INDICATED 8 PERCENT OUT OF BAND. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4723-C SLV-99-24-4723-C COMMUNICATOR	FAR 27-01030-21	640714	FACTORY	YES NO	FIFTH DIMENSIO N MEXD-469	892988
FAILURE MODE-OPEN (ELECT). PIN 8 OF PLUG J-1 FOUND OPEN DURING VIBRATION TESTING. FAILURE NOT CONFIRMED AS FAILURE ANALYSIS WAS CANCELLED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4724-C SLV-99-24-4724-C COMMUNICATOR	FAR 27-01030-18	640714	FACTORY	YES NO	FIFTH DIMENSIO N MEXD-469	892987
FAILURE MODE-OPEN (ELECT). PIN 2 OF PLUG J-2 WAS OPEN DURING VIBRATION TESTING. FAILURE NOT CONFIRMED AS FAILURE ANALYSIS WAS CANCELLED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-99-24-4734-F FAR-LV-99-24-4734-F ACCELEROMETER TRANSDUCER	FAR 7-01413-3	8500 640713	ETR	YES NO	BORG-WARNER NO 8747-B	890867
FAILURE MODE-CONTAMINATION. THE ACCELEROMETER ACTED ERRATICALLY DURING A PROCEDURE RUN. THE SENSING HEAD WAS FOUND TO BE LEAKING DUE TO CORROSION PROBABLY CAUSED BY ACID CORE SOLDER FLUX.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR HAS DISCONTINUED USE OF ACID CORE SOLDER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4734-F SLV-99-24-4734-F TRANSDUCER POWER SUPPLY-DIODE	FAR 98-13340-803	640709	FACTORY	YES NO		893038
FAILURE MODE-OUT OF SPECIFICATION. THE 5 VOLT REFERENCE VOLTAGE WOULD NOT ADJUST PROPERLY. POWER SUPPLY VOLTAGE DRIPT BEYOND THE 10MV SPECIFICATION WHEN ALLOWED TO OPERATE CONTINUOUSLY FOR AS LITTLE AS 12 MINUTES. THE OUTPUT ZENER DIODE CAN DRIFT MORE THAN THE ALLOWABLE OUTPUT TOLERANCE. THIS DIODE (1N468A1) DOES NOT HAVE A STRINGENT ENOUGH TEMPERATURE CHARACTERISTIC FOR THIS POWER SUPPLY APPLICATION.							
CORRECTIVE ACTION-IN ANSWER TO FAR SLV-99-24-9396, THE 1N468A DIODE HAS BEEN REPLACED WITH A P/N 68-03170 SPECIAL QUALITY DIODE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR ERS	LV-99-24-4703-0 FAR	640706	FACTORY			BENDIX 1098485-28 0923894
FAILURE MODE-OUT OF TOLERANCE. DC GEAR MOTOR FAILED WHEN IT INDICATED A SPEED OF 12 RPS. SPECIFICATIONS REQUIRE 10 R PS PLUS OR MINUS 0.5. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER PER TWX 84-91-003.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	69C-2040-3 UTP-SLT	640706	GD/C		YES BOURNS NO 7007371703	092344
FAILURE MODE - ERRATIC OPERATION. NEGATIVE NOISE SPIKES OF 20-25 PERCENT WERE EVIDENT THROUGHOUT THE SLT X, Y AND Z AXIS/TEMPERATURE SINE/RANDOM VIBRATION SWEEPS. S/N 3090041.						
CORRECTIVE ACTION-NONE. VIBRATION LEVELS FOR THIS TEST ARE 25 PERCENT ABOVE SLV DESIGN LEVEL REQUIREMENTS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER BEARING ERS	69C-2040-3 UTP-SLT	640706	GD/C		YES BOURNS NO 7007371703	092343
FAILURE MODE - STRUCTURAL. DURING PAST Y-AXIS VIBRATION PROOF CYCLE THE ERRORS WERE AS HIGH AS 3.22 PERCENT (1.0 PE RCENT ALLOWED). VENDOR DISASSEMBLY REVEALED THAT THIS WAS CAUSED BY MINOR IMPRESSIONS ON THE BEARING CONES, CAUSED BY THE VIBRATION LEVEL ENCOUNTERED. S/N 3090041.						
CORRECTIVE ACTION-NONE. OTHER TRANSDUCERS OF THIS SERIES (69-01003) DID NOT EXHIBIT SIMILAR IMPERFECTIONS AFTER SLT RANDOM/SINE VIBRATIONS. THE VIBRATION LEVEL WAS 25 PERCENT ABOVE DESIGN LEVEL REQUIREMENTS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR/RESISTOR ERS	SLV-99-24-4748-F FAR	640707	FACTORY		YES BENDIX-PACIFIC NO 3133123-13AA	
FAILURE MODE-DRIFT. FREQUENCY TENDED TO DRIFT AS THE UNIT WAS WARMED UP. FREQUENCY DRIFT WAS DUE TO THE TEMPERATURE SENSITIVITY OF THE OSCILLATOR. THIS WAS CAUSED BY TWO FAULTY CARBON FILM RESISTORS R10 AND R-11 IN THE TEMPERATURE COMPENSATING CIRCUIT. RESISTOR FAILURE WAS DUE TO POOR INTERNAL CONSTRUCTION. AS RESISTANCE VALVES VARIED WHEN RESIS TOR LEADS WERE MOVED. BOTH RESISTANCE VALVES MEASURED HIGH AND WERE OUTSIDE SPECIFICATIONS.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE, SINCE THIS IS THE ONLY REPORTED FAILURE OF THIS UNIT IN THIS MODE.							092629
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR89C-2038.2	UTP-PRT 09-01003-29	040706	FACTORY	YES	BOURNS NO 2007371702	090769
FAILURE MODE-OUT OF TOLERANCE. DURING BOTH X AND Y-AXIS RANDOM/SINE VIBRATION, THE NOISE LEVEL WAS GREATER THAN SPECIFIED. THIS IS CAUSED BY A MOMENTARY DISCONTINUITY BETWEEN THE WIPER AND THE WINDING. 8/M 3040078.							
CORRECTIVE ACTION-NONE.							097460
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FTAB471/P3-4CO-02-210	COMPOSITE-B FACT 27-11616-823	216D 640702	ETR-13	YES NO		
FAILURE MODE-FAIL DURING OPERATION. INTERMITTENT OPERATION OF TELEMETRY MEASUREMENT 8610, ROLL DISPLACEMENT GYRO 81 SHAL, OCCURRED DURING COUNTDOWN GUIDANCE COMMAND TEST. OPERATION WAS PROPER DURING PLUS COUNT.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. PARTIAL DATA LOSS DURING THE GUIDANCE COMMAND TEST.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-TELEMETRY ACCESSORY PACKAGE REPLACED.							097459
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FTAB471/P3-4CO-02-210	COMPOSITE-B FACT 27-11341-833	216D 640702	ETR-13	YES NO		
FAILURE MODE-OUT OF TOLERANCE. TLM MEASUREMENT 23E, TRANSPONDER RF INPUT/A6C, READ 85 PERCENT ISM WHEN A READING OF APPROXIMATELY 30 PERCENT WAS EXPECTED.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-REPLACED TELEMETRY RF PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	FAR-8LV-A9-24-4730-F	FAR 7-01684-3	7102 640702	FACTORY	YES	LEWIS NO 7-01684-3	
FAILURE MODE-ELECTRICAL OPEN. DURING CHECKOUT, AN OPEN CIRCUIT WAS INDICATED IN THE TRANSDUCER. EXAMINATION REVEALED A BROKEN WIRE PROBABLY CAUSED BY MISHANDLING BEFORE OR DURING INSTALLATION.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. PERSONNEL OF APPROPRIATE DEPARTMENTS WERE INFORMED OF THE PROBLEM AND THE CONSEQUENCES OF MISHANDLING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	LV-A8-24-4704-C LV-A8-24-4704-C FAR 7-01720-B	FAR 7-01720-B	289D 640630	FACTORY	YES SERVONICS NO	
FAILURE MODE-ERRATIC OUTPUT. MEASUREMENT HOSP INDICATED VARIATIONS IN OUTPUT DURING SYSTEM TESTING OF UP TO 8 PERCENT INFORMATION BANDWIDTH. THE CONDITION WAS ACCEPTABLE TO ENGINEERING. ENGINEERING STATES THAT WHEN THE MISSILE IS PLACED IN THE VERTICAL POSITION THIS CONDITION WILL NOT EXIST, THEREFORE THE FAILURE ANALYSIS IS NOT REQUIRED.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER CHANGE OVER SWITCH ERS	A-A8-24-4699-F A-A8-24-4699-F FAR 55-01017-3	FAR 55-01017-3	1477 640630	FACTORY	YES NO	
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. POWER CHANGE OVER SWITCH FAILED TO SWITCH FROM ITS INTERNAL TO ITS EXTERNAL POSITION. FAILURE WAS CONFIRMED. THE SWITCH WAS FOUND TO BE INOPERATIVE AFTER BEING SUBJECTED TO SIMULTANEOUS INTERNAL AND EXTERNAL COMMANDS.						
CORRECTIVE ACTION-REQUESTED APPLICABLE PROCEDURES INCLUDE WARNING THAT POWER CHANGE OVER SWITCHES ARE NOT TO BE CYCLED MORE THAN ONCE A MINUTE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	FR69C-2035-2 FR69C-2035-2 UTP-PRT 69-01003-29	UTP-PRT 69-01003-29	640630	FACTORY	YES BOURNS NO 2007371702	
FAILURE MODE-LEAK-EXTERNAL. TWICE ON THE PNE Y-AXIS VIBRATION PROOF CYCLE (6-30-64 AND 7-6-64) AND TWICE ON THE POSITIVE Y-AXIS VIBRATION PROOF CYCLE (7-6-64 AND 7-7-64) THE TRANSDUCER ERROR EXCEEDED THE SPECIFICATION. THE FAILURE WAS DUE TO A LEAK IN A SILVER BRAZE JOINT AT THE BASE OF THE BOURDON TUBE. S/N 3040075.						
CORRECTIVE ACTION-THE VENDOR INITIATED A MANUFACTURING CHANGE THAT PERFORMS A HIGH PRESSURE HELIUM LEAK CHECK INSTALLED AFTER TUBE CYCLING. BRAZE JOINT APPEARED TO BE AN ISOLATED CASE OF MARGINAL WORKMANSHIP.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER TUBE ERS	SLV-99-24-4690-F FAR	640829	FACTORY	YES	BENDIX-PACIFIC NO	893619
FAILURE MODE-OUT OF TOLERANCE. POWER AMPLIFIER FAILED WHILE INSTALLED IN A TELEPAK BY LOSING POWER AND NOT MEETING ITS MINIMUM REQUIREMENT. THIS POWER LOSS WAS CAUSED BY THE RAYTHEON VACUUM TUBES BEING OPERATED ABOVE THEIR ABSOLUTE MAXIMUM RATINGS. FAILURE WAS CONFIRMED, HOWEVER, THE EXACT CAUSE IS IN DISAGREEMENT BETWEEN THE VENDOR AND ASTRONAUTICS.						
CORRECTIVE ACTION-VENDOR IS BURNING-IN 20 AMPLIFIERS TO PROVE IF THE PROBLEM IS IN THE AMPLIFIER OR ELSEWHERE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGEOVER SWITCH-MOTOR ERS	A-49-24-4685 FAR	640829	FACTORY	YES	NO	893619
FAILURE MODE-ELECTRICAL SHORT. K-1 RELAY IN THE TOP TELEMETRY PACKAGE LOCKED IN THE INTERNAL POSITION RESULTING IN CONTINUITY BETWEEN PINS M AND N OF 104V1J1, WHEN IT SHOULD HAVE BEEN OPEN. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A M OPEN MOTOR CIRCUIT. THE OPEN MOTOR CIRCUIT WAS DUE TO A BURNED BRUSH LEAD AND A BURNED BRAKE WINDING CAUSED BY THE MOTOR RECEIVING EXTERNAL-INTERNAL COMMANDS SIMULTANEOUSLY.						
CORRECTIVE ACTION-RECOMMENDED RESPONSIBLE PERSONNEL TAKE NECESSARY ACTION TO PREVENT THIS TYPE OF FAILURE FROM RECURRING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	LV-A9-24-4694-F FAR	640829	FACTORY	YES	BOURNS NO	893619
FAILURE MODE-LEAK-EXTERNAL. LEAKING OIL WAS DISCOVERED AROUND THE ELECTRICAL RECEPTACLE. THE FAILURE WAS ATTRIBUTED TO IMPROPER SOLDERING TECHNIQUES, PROBABLY DUE TO THE APPLICATION OF EXCESSIVE HEAT, RESULTING IN A SHRINKAGE CRACK AND A VOID.						
CORRECTIVE ACTION-THE VENDOR STATED THE TRANSDUCER WAS USED BEYOND ITS NORMAL LIFE (MORE THAN 8 YEARS), AND DID NOT REFLECT CURRENT WORKMANSHIP STANDARDS AND ASSEMBLY TECHNIQUES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	PRETAB817 UTP-PET	640829	FACTORY	YES	COLVIN NO	893619
FAILURE MODE-OUT OF SPECIFICATION. DURING EXAMINATION OF THE PRODUCT, THE UNIT DID NOT COMPLY WITH ENGINEERING DRAWING IN TWO DIMENSIONS. THE DRAWING DIMENSIONS WERE DETERMINED TO BE CORRECT.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE TIME DIF	PRI OTH	VENMOOR NAME VENMOOR PART NO
CORRECTIVE ACTION-NONE DOCUMENTED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	CT-A9-24-3127 TRANSMITTER	FAR 55-01149-3	1350 640823	ETR	YES NO	TEXAS INSTRUME MTS 435578-7
FAILURE MODE-OUT OF TOLERANCE. OUTPUT FREQUENCY WAS 48.3 KILOCYCLES BELOW THE NOMINAL 232.4 MEGACYCLES. THE FAILURE WAS APPARENTLY CAUSED BY A SHIFT IN ALIGNMENT. THE EXACT CAUSE OF FAILURE WAS NOT FOUND SINCE SPECIFIC MEASUREMENTS OF PART VALUES ARE NOT MADE AND RECORDED DURING TRANSMITTER ASSEMBLY AND NO FAILED OR OUT OF TOLERANCE PARTS WERE DETECTED.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	CT-8B-24-3141 TRANSMITTER	FAR 55-01149-3	640623	ETR	YES NO	TEXAS INSTRUME MTS 435578-7
FAILURE MODE-FAILED DURING OPERATION. TRANSMITTER OUTPUT WAS ZERO. FAILURE WAS NOT CONFIRMED. HOWEVER, POWER OUTPUT WAS LOW. THE TUBE DISPLAYED THE NORMAL DEGRADATION EXPECTED WITH EXTENDED USE. NO INDICATION WAS FOUND INDICATING THE TUBE WAS OPERATED BEYOND ITS DESIGN PARAMETERS.						
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED. A RECOMMENDATION WAS MADE THAT OPERATING TIME OF THESE TRANSMITTERS BE KEPT UP TO DATE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	FR69C2176.2 TLM CANISTER-CIRCUIT BOARD	UTP-PT 69-11100-801	640623	60/C	YES NO	60/C
FAILURE MODE-STRUCTURAL. TEST SPECIMEN AT AMBIENT TEMPERATURE 80 PLUS 10 DEGREES F. PRT 2 AXIS RANDOM-SINE VIBRATION SWEEP IN PROGRESS. THE OUTPUT OF PIN 59, CHANNEL 11, SHOWED NEGATIVE AND THE SLIPS ON CHANNEL 5 BECAME IMOPERATIVE. THE CHANNEL 11 PROBLEM WAS CAUSED BY A BAD CONNECTOR RETAINING SPRING CLIP AT PIN-6 OF THE J13 CONNECTOR. THE CHANNEL 5 PROBLEM WAS CAUSED BY 3 CAPACITORS THAT HAD BROKEN OFF THE CIRCUIT BOARD AT THE BEND RADIUS.						
CORRECTIVE ACTION-ECP 7960 WAS SUBMITTED FOR A REDESIGN OF THE CIRCUIT BOARD ASSEMBLIES TO REINFORCE COMPONENT MOUNTING TO MEET PRT VIBRATION LEVELS. REF. FA-694-2-210 SUPP C.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTM	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-SLV-95-24-4800 FAR-SLV-95-24-4800 FAR-SLV-95-24-4800	FAR 99-01003-29	940824	FACTORY	YES	BOURNS NO 506781792	993301
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER OUTPUT HAD A STATIC ERROR BAND IN EXCESS OF ALLOWABLE. HOWEVER, TESTS , DISASSEMBLY AND ANALYSIS DID NOT REVEAL ANY DISCREPANCIES.							
CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. NO CORRECTIVE ACTION WAS TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BANDPASS FILTER ERS	SLV-99-24-4758 FAR 97-01298-9	FAR 97-01298-9	940824	FACTORY	YES	ALLIED COMPONE NO MTA AC13038-9	994105
FAILURE MODE-STRUCTURAL. OUTPUT AT 875 CPS WAS 0.082 VOLT AC, WHEREAS 0.070 TO 0.115 VOLT AC WAS REQUIRED. FAILURE WAS CAUSED BY CHANGES IN INDUCTANCE DUE TO AGING OF THE EPOXY OR TO IMPROPER CURING OF THE EPOXY DURING BANDPASS FIL TER ASSEMBLY.							
CORRECTIVE ACTION-SURVEY-INSTRUCTION 118-64 DATED 22 SEPT. 1964 REMOVED ALL PIN 27-01299-1, -3 AND -5 BAND PASS FIL TERS FROM STOCK AND CALLED OUT PERFORMING TESTS RECOMMENDED IN FAR SLV-99-24-0383.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-CAPACITOR ERS	SLV-99-24-4716 FAR 99-11118-1	FAR 99-11118-1	940824	FACTORY	NO	NO	992887
FAILURE MODE-SHORT (ELECT). OUTPUT COULD NOT BE ADJUSTED TO REQUIRED VOLTS DC. FAILURE CAUSED BY PARTIALLY SHORTED CAPACITOR WHICH WAS PROBABLY CAUSED BY EXCESSIVE VOLTAGE APPLIED DURING TESTING.							
CORRECTIVE ACTION-PERSONNEL CAUTIONED NOT TO EXCEED VOLTAGE INPUT REQUIREMENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR MODULE CAPACITOR ERS	F88C2176.2 F88C2176.2	UTP-PRT 87-18291-9	940824	60/C	YES	60/C NO 87-18291-9	
FAILURE MODE-STRUCTURAL. TEST SPECIMEN AT AMBIENT TEMPERATURE. PRT X-AXIS RANDOM-SINE SHEEP IN PROGRESS. THE CALIBR ATION PULSE FAILED ON CHANNELS 5, 6, 7, 8, 9 AND 10 WITH 27.9 VDC APPLIED TO J1-M. THIS WAS CAUSED BY CAPACITOR C1 AND C 2 BEING BROKEN OFF OF CIRCUIT BOARD.							
CORRECTIVE ACTION-ECP SUBMITTAL FOR REDESIGN OF CALIBRATOR MODULE TO REINFORCE CAPACITOR MOUNTINGS TO MEET PRT VIBR							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	OIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OIM	VENDOR NAME VENDOR PART NO	
ATION LEVELS (ECP 7060). REF. FR-834-B-281 AND FR-834-B-218 C.							800976
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-89-24-4717-F 89-11118-1	FAR	840629	FACTORY	YES		802826
FAILURE MODE OPEN (ELECT). C/PUT VOLTAGE UNSTABLE. FAILURE CAUSED BY AN OPEN R-6 POTENTIOMETER.							
CORRECTIVE ACTION-POTENTIOMETER REPLACED WITH IMPROVED 100K POTENTIOMETER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	SLV-90-24-4713-F 27-01552-95	FAR	7101	8-4	YES	MIANCKO NO 84103-21	803279
FAILURE MODE-OUT OF SPECIFICATION. FOUR TRANSDUCERS FAILED DURING A FLIGHT READINESS TRAINING IN THAT THE DATA WAS ER RONEOUS. BY CALIBRATION THE MAXIMUM ERRORS WERE FOUND TO BE PLUS 18, PLUS 27, PLUS 100 AND MINUS 19 PERCENT. IT IS P RESUMED THAT THE TRANSDUCERS WERE DAMAGED BY OVERPRESSURIZATION DURING THE START SEQUENCE.							
CORRECTIVE ACTION-NONE. THESE TRANSDUCERS WERE IN A SPECIAL INSTALLATION TO BE USED ONLY ONCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR WIRING ERS	FR89C2174-2 27-01638-15	UTP-PRT	840622	60/C	YES	FIFTH DIMENSIO NO N MIXD-486	803245
FAILURE MODE-OPEN (ELECT). TEST SPECIMEN WAS AT AMBIENT TEMPERATURE WHILE PRT X-AXIS RANDOM-SINE SINEEP WAS IN PROGR ESS-SEGMENT 41 OF CHANNEL C AND SEGMENT 1 OF CHANNEL 13 DID NOT RESPOND TO INPUT SIGNALS. THIS WAS CAUSED BY INTERNA L OPENS IN COMMUTATOR DUE TO BROKEN WIRES.							
CORRECTIVE ACTION-ECP 7060 WAS SUBMITTED TO CORRECT RANDOM-SINE DISCREPANCIES BUT WAS DISAPPROVED BY CUSTOMER. REF. FR-834-B-346.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ABSOLUTE-PRESSURE TRANSDUCER ERS	SLV-89-24-4691-C 89-01008-39	FAR	7102	FACTORY	YES	BOURNS NO	
FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER HAD OUTPUT SPIKING. NO ANALYSIS WAS PERFORMED BECAUSE THE TRANSDUCER WAS DISPOSITIONED ACCEPTABLE AS 19.							

GENERAL DYNAMICS
CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI DIF	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	FR 89C 8178-2 FR 89C DEMODULATOR-POTENTIOMETER	UTP-PTT 69-11110-3	640828	60/C	YES 60/C NO 69-11110-3	092817 091780
FAILURE MODE-OUT OF TOLERANCE. TEST SPECIMEN AT AMBIENT TEMPERATURE, X AXIS RANDOM-SINE SWEEP IN PROGRESS. CHANNEL 5 READS PLUS 10 PERCENT HIGH, INTERMITTENTLY LOSING MEASUREMENT 994R. THIS WAS CAUSED BY A POSSIBLE HEAT SENSITIVE DEMODULATOR TRIM POTENTIOMETER.						
CORRECTIVE ACTION-AN ECP TO REPLACE THE TRIMPOT IN THE DEMODULATOR WITH AN IMPROVED TYPE WAS SUBMITTED AND DISAPPROVED BY SLV ENGINEERING CHANGE BOARD. PART WAS INCLUDED IN STUDY ON TCP 833881, PARTS IMPROVEMENT PROGRAM. REF. 7R-85 4-2-342.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	SLV-49-24-4032-F SLV-49-24-4032-F	FAR 89-01120	840821	FACTORY	YES NO	093021
FAILURE MODE-FAIL DURING OPERATION. DIFFERENTIAL AMPLIFIER FAILED WHILE INSTALLED IN A TELEFAR. SEGMENTS 1 AND 31 OF CHANNEL 11 INDICATED SPIKING OF APPROXIMATELY 80 PERCENT OF INFORMATION BANDWIDTH WHEN GREATER THAN 100 PERCENT WITHOUT SPIKING WAS EXPECTED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE DIFFERENTIAL AMPLIFIER OPERATING IN SATURATION WITH AN EXCESSIVE INPUT.						
CORRECTIVE ACTION-DESIGN GROUP INITIATED A CHANGE WHEREBY THE OUTPUT MUST BE GREATER THAN 5 VOLTS DC (100 PERCENT) FOR ALL INPUTS GREATER THAN THE NORMAL SPECIFICATION INPUTS. DATA EVALUATION PERSONNEL WERE INFORMED OF THE SATURATION CHARACTERISTICS OF THE AMPLIFIER AND THE LACK OF SPECIFICATIONS IN REGARD THERETO. THE AMPLIFIER CANNOT BE REJECTED BECAUSE OF THE SATURATION ANY SUBSEQUENT SPIKING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	SLV-49-24-4707-F SLV-49-24-4707-F	FAR 89-01003-31	7102	FACTORY	NO BURNS NO 2007371703	093027
FAILURE MODE-OPEN (ELECT). THE TRANSDUCER HAD AN OPEN CIRCUIT. MICROSCOPIC EXAMINATION SHOWED THE RESISTIVE WIRE HAD BEEN BURNED OPEN. AN EXCESSIVE VOLTAGE HAD BEEN APPLIED TO THE TRANSDUCER. IT WAS FOUND THAT A DEFECTIVE TEST SET HAD BURNED OUT THE TRANSDUCER DURING CHECKOUT. DEFECTIVE TEST SET 3985, 9/M 57-40400-1, 8/M 3, HAD A SHORT BETWEEN P1 NS 5 AND 11 OF SWITCH D-Y. THE TEST SET WAS REPAIRED.						
CORRECTIVE ACTION-NONE.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VEHICLE PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	09C1649.3 09C1649.3	UTP-PRT 09-01003-13	640620	6D/C	YES NO	BOURNS NO 2004206304
<p>FAILURE MODE-STRUCTURAL. DURING FIRST 3 SECONDS OF X-AXIS RANDOM/SINE TEMPERATURE VIBRATION TEST, THE OUTPUT WENT TO 100 PERCENT. FAILURE ANALYSIS AT VENDORS PLANT INDICATED LINKAGE WIRE BETWEEN BELLOW AND WIPER WAS BROKEN JUST BELOW THE WELD INSIDE THE BEARING. FAILURE APPEARS TO BE DUE TO OVER HEATING, LACK OF LOCKTITE OR BOTH.</p>						
<p>CORRECTIVE ACTION-IN VIEW OF THE FAILURE HISTORY OF THESE UNITS, PET TESTING WAS ESTABLISHED TO CONTROL INCOMING QUALITY.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER ERS	A-99-24-4708-F A-99-24-4708-F	FAR 27-12478-1	640619	SAN DIEG O	YES NO	892624
<p>FAILURE MODE-OUT OF TOLERANCE. SUMMING NETWORK FAILED WHEN ITS OUTPUT WAS 4.954 VOLTS DC. OUTPUT SHOULD BE 5.000 PLUS OR MINUS 0.005 VOLTS DC.</p>						
<p>CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-POTENTIOMETER ERS	CT-98-24-3145 CT-98-24-3145	FAR 27-01333-9	1330 640619	STR	YES NO	891699
<p>FAILURE MODE-OUT OF TOLERANCE. CHANNEL 1-11 SUBCARRIER OSCILLATOR OUTPUT COULD NOT BE ADJUSTED TO WITHIN TOLERANCE. FAILURE WAS CAUSED BY A DEFECTIVE POTENTIOMETER MANUFACTURED BY MINELCO.</p>						
<p>CORRECTIVE ACTION-A THOROUGH STUDY OF MINELCO POTENTIOMETERS WAS STARTED IN SEPT. 1963. SUBSEQUENT CHANGES TO MINELCO POTENTIOMETERS ARE IDENTIFIED BY DATE CODE NUMBER 6230 OR GREATER.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	LV-99-24-4672-F LV-99-24-4672-F	FAR 27-01612-3	640619	FACTORY	YES NO	891699
<p>FAILURE MODE-FAIL DURING OPERATION. RADIOFREQUENCY POWER AMPLIFIER FAILED WHILE INSTALLED IN A TELEMETRY. INPUT CURRENT ROSE TO 8 AMPERES WHEN 4 AMPERES IS THE MAXIMUM ALLOWED. FAILURE WAS CONFIRMED. HOWEVER, THE EXACT CAUSE WAS NOT DETERMINED. TWO POSSIBLE CAUSES WERE OPERATION OF THE AMPLIFIER WITHOUT A LOAD AND THE TUBES BEING OPERATED ABOVE THE MANUFACTURERS ABSOLUTE MAXIMUM RATINGS.</p>						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIV	SITE TIME DIV	PRI OTH	VENDOR NAME VENDOR PART NO	
	CONNECTIVE ACTION-BY MUTUAL AGREEMENT VENDOR IS TO PERFORM A 100 HOUR TEST ON 20 AMPLIFIERS TO DETERMINE IF THE TUBES ARE BEING OVERDRIVEN. ALSO ALL TEST PERSONNEL ARE TO OPERATE THE AMPLIFIER WITH A 50 OHM LOAD.						095460
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	LV-99-24-4703-C	FAR 87-01611-1	640617	FACTORY	YES	SENDIX NO 3130896-2	092966
FAILURE MODE-FAIL DURING OPERATION. POWER SUPPLY FAILED DURING PREVIBRATION CHECK OF THE TOP PACKAGE WHEN THE POWER SUPPLY EXHIBITED NO OUTPUT. A MINIMUM OF 7 WATTS WAS REQUIRED. FAILURE ANALYSIS WAS CANCELED DUE TO LACK OF AUTHORIZED FUNDS.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	A-99-24-4775F	FAR 69-11116-1	640616	FACTORY	YES	SPECTROL NO 60	094106
FAILURE MODE-ELECTRICAL OPEN. OUTPUT WAS 0.0615 VOLT DC WHEREAS 0.000 PLUS OR MINUS 0.50 VOLT DC WAS EXPECTED. FAILURE WAS CAUSED BY FAILURE OF POTENTIOMETER R6. R6 HAS FOUND OPEN ELECTRICALLY AT 100 DEG F.							
CORRECTIVE ACTION-RAR 8LV-99-24-6251 WAS PREVIOUSLY ISSUED RECOMMENDING-(A) THE USE OF SPECTROL MODEL 60 POTENTIOMETERS BE DISCONTINUED BY CONVAIR. (B) REMOVE ALL SPECTROL MODEL 60 POTENTIOMETERS FROM STOCK.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR ERS	LV-99-24-4702-C	FAR 7-12232-5	640616	FACTORY	YES	NO	092965
FAILURE MODE-FAIL DURING OPERATION. CALIBRATOR FAILED WHEN NO POSITIVE OR NEGATIVE PULSES WERE INDICATED THEREBY VERIFYING A NO-OUTPUT CONDITION. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY TNX 64-61-003.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-99-24-4679-F	FAR 7-01737-9	640612	FACTORY	YES	SERVONICS NO D-92	
FAILURE MODE-LEAK-EXTERNAL. THE TRANSDUCER HAD AN OUT OF SPECIFICATION ERROR BAND. FAILURE WAS ATTRIBUTED TO A POROUS BRAZED WELD PERMITTING PRESSURE TO ENTER THE SEALED CASE.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE	PRI OTH	VENDOR NAME VENDOR PART NO	
							092390
	CORRECTIVE ACTION-THE VENDOR REVISED BOTH MANUFACTURING AND INSPECTION TECHNIQUES TO REDUCE THE POSSIBILITY OF POROUS WELDS AND TO INCREASE THE POSSIBILITY OF DETECTING THOSE POROUS WELDS WHICH MAY EXIST.						
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR89C-2186-3	UTP-SLT 69-01004-23	640612	FACTORY	YES	BOURNS NO	090751
	FAILURE MODE-OUT OF TOLERANCE. DURING POST Z-AXIS SLT VIBRATION PROOF CYCLE, THE OUTPUT ERROR WAS 0.94 PERCENT. THE MAXIMUM ALLOWABLE ERROR IS 0.75 PERCENT AND THE INSTRUMENTATION ERROR IS 0.11 PERCENT.						
	CORRECTIVE ACTION-NONE THE VIBRATION LEVEL WAS APPROXIMATELY 100 PERCENT ABOVE SPECIFICATION REQUIREMENT AND THE UNIT IT HAD SUCCESSFULLY PASSED THE PERIODIC RE-EVALUATION TEST.						
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC REGULATOR-POTENTIOMETER ERS	SLV-A9-24-4652-F	FAR 69-11117-1	640610	FACTORY	YES NO		095455
	FAILURE MODE-OPEN (ELECT) RADIOFREQUENCY TELEMETER FAILED WHEN CHANNELS 5, 8 AND 9 INDICATED GYRO NULL LEVELS OF 71 PERCENT INFORMATION BANDWIDTH WHEN 50 PCT IS SPECIFIED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE POTENTIOMETER IN THE REGULATOR MODULE OF THE DEMODULATOR 69-11110-5 BEING BURNED OPEN ON ITS GROUND END. THIS CONDITION ALLOWED THEREIN AS VOLTAGE GENERATED BY THE REGULATOR TO BE 80 PERCENT HIGH. THE POTENTIOMETER WAS DAMAGED BEFORE THE MODULE WAS POSTED.						
	CORRECTIVE ACTION-REQUESTED THAT TEST PERSONNEL EXERCISE CARE WHEN TESTING THE DEMODULATOR MODULES AND THEIR SUB MODULES.						
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC TRANSDUCER-AMPLIFIER-RESISTOR ERS	SLV-A9-24-4708-F	FAR 27-01924-1	640610	FACTORY	YES NO	CULTON INDUSTRIES 27-01924-1	093653
	FAILURE MODE-SHORT (ELECT). BIAS UNIT FAILED WHEN THE OUTPUT VOLTAGE WAS FOUND TO BE HIGH AND FLUCTUATING. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A PARTIALLY SHORTED RESISTOR. THE PRECISE CAUSE OF THE RESISTOR FAILURE COULD NOT BE ISOLATED.						
	CORRECTIVE ACTION-REQUESTED THE QUALITY CONTROL GROUP INVESTIGATE THE POSSIBILITY THAT MERCURY CONTAMINATION WAS INTRODUCED BY THE VENDOR.						
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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE FACTORY	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	8LV-AS-24-4709-F BLV-AS-24-4709-F	FAR 69-01003-39	7102 640610	FACTORY	YES	BOURNS NO 2007371707	093928
FAILURE MODE-OUT OF TOLERANCE. DURING MISSILE CHECKOUT THE VOLTAGE OUTPUT WAS HIGH-PLUS 0.028 VOLT WHEN PLUS 0.002 VOLT IS EXPECTED. FAILURE WAS NOT CONFIRMED. CHECKOUT PROCEDURE WAS NOT COMPATIBLE WITH THE UNITS SPECIFICATION.							
CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. 6D/C CORRECTED CHECKOUT PROCEDURE TO INSURE COMPATIBILITY WITH SPECIFICATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER INDUCTOR, DIODE ERS	CT-98-24-3143	FAR 59-01149-3	1350 640610	ETR	YES	TEXAS INSTRUMENTS NO MTS 435378-7	091028
FAILURE MODE-OUT OF TOLERANCE. LOW POWER OUTPUT AND IMPROPER DEVIATION SENSITIVITY. LOW POWER OUTPUT WAS CAUSED BY AN IMPROPERLY TUNED INDUCTOR (L-203). THE LOCKRING WAS APPARENTLY LEFT LOOSE BY THE MANUFACTURER. IMPROPER DEVIATION SENSITIVITY WAS APPARENTLY CAUSED BY A CHANGE IN CAPACITANCE OF THE VARICAP DIODE.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	6SC2037	UTP-PRT 7-01633-3	640610	6D/C	YES	LEWIS NO 369348	091170
FAILURE MODE-STRUCTURAL. ELEMENT B OPEN CIRCUITED DURING THE PROOF CYCLE FOLLOWING 300 DEG. F HIGH TEMPERATURE TEST. THE FAILURE APPEARED TO BE THE RESULT OF MISHANDLING. THE CERAMIC MANOREL WAS CRACKED AND THERE WAS EXTERNAL DAMAGE TO THE SHIELD.							
CORRECTIVE ACTION-TEST PROCEDURES HAVE BEEN REVISED TO INCORPORATE IMPROVED HANDLING TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER TRANSDUCER ERS	FAR-LV-99-24-4888-F	FAR 7-01433-3	640609	FACTORY	YES	BORG-WARNER NO 9747-B	090669
FAILURE MODE-CONTAMINATION. THIS ACCELEROMETER MEASURES MISSILE LONGITUDINAL ACCELERATION. DURING A TEST IN THE FACTORY IT HAD NO OUTPUT. CONTAMINATION WAS FOUND IN THE SENSING HEAD, THE RESULT OF USING AN ACID CORE SOLDER FLUX.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR DISCONTINUED THE USE OF ACID CORE SOLDER.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE DATE	DIP TIME	DIP OTH	PRI	VENDOR NAME	VENDOR PART NO
819-SYSTEM	98C-8057	UTP-PRT	640608	60/C	YES	LEWIS	NO	969348
INSTRUMENTATION-A/B	TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER	7-01833-8						
ERR								
<p>FAILURE MODE-CONTAMINATION. INSULATION RESISTANCE WAS 8 MEGOHMS. A MINIMUM OF 20 MEGOHMS IS REQUIRED. TRICHLOROETHYLENE USED IN CLEANING DELAYED THE SILICONE RUBBER PRESSURE RELIEF DEVICE. THE TRICHLOROETHYLENE THEN ENTERED THE HEAD AND CAUSED DETEIORATION OF THE INSULATION.</p>								
<p>CORRECTIVE ACTION-CLEANING PROCEDURES WERE CHANGED TO OMIT CLEANING THE HEAD TO ASSURE THAT THE SILICONE RUBBER SEAL WILL NOT BE DAMAGED BY ANY CLEANING AGENT.</p>								
INSTRUMENTATION-A/B	98C-8057	UTP-PRT	640608	60/C	YES	LEWIS	NO	969348
TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER	7-01833-8							
ERR								
<p>FAILURE MODE-LEAK-EXTERNAL. DURING THE INITIAL PROOF CYCLE, THE TRANSDUCER LEAKED IN EXCESS OF THE PERMISSIBLE MAXIMUM 100C/SEC FAILURE WAS CAUSED BY A POROUS SILVER SOLDER PRESSURE SEAL AT THE SENSING ELEMENT END OF THE PROBE.</p>								
<p>CORRECTIVE ACTION-THE VENDOR HAS CHANGED WELDING AND INSPECTION PROCEDURES SO ITS QUALITY CONTROL WILL, HENCEFORTH, BE ADEQUATELY MAINTAINED.</p>								
INSTRUMENTATION-A/B	SLV-98-24-4697-F	PAR	640608	FACTORY	YES			
TELEMETRY SET AND TRANSDUC RECTIFIER DIODE	27-12405-1				NO			
ERR								
<p>FAILURE MODE-OUT OF TOLERANCE. THE RECTIFIER FAILED WHEN IT WAS OBSERVED THE 115 VOLT AC INPUT WAS BEING LOADED DOWN TO 20 VOLTS AC. FAILURE WAS CONFIRMED, HOWEVER, EXACT CAUSE WAS NOT KNOWN. PROBABLE CAUSE WAS A CRACKED CRYSTAL IN CR-3.</p>								
<p>CORRECTIVE ACTION-NONE, SINCE THE IDENTITY OF THE DIODE MANUFACTURER COULD NOT BE LEARNED.</p>								
INSTRUMENTATION-A/B	A-99-24-4713-F	PAR	640608	FACTORY	YES	KINETICS		
TELEMETRY SET AND TRANSDUC POWER CHANGEOVER SWITCH/S	27-01806-801				NO	M-149-T		
ERR								
<p>FAILURE MODE-STRUCTURAL. SEPARATION BETWEEN EYELET POST AND COLLAR AROUND EYELET TERMINALS. FAILURE CAUSED BY FAILURE OF VENDOR TO PROPERLY SEAL THESE 3 UNITS AND/OR APPLICATION OF EXTREME HEAT WHEN SOLDERING LEADS.</p>								

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-PROCEDURES, TESTS AND INSPECTION METHODS REVIEWED BY VENDOR AND FOUND ADEQUATE TO PREVENT FAULTY UNITS FROM BEING SHIPPED.							092026
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMBINATOR ERS	SLV-99-24-4782 FAR 27-01036-21	640803	FACTORY	YES	FIFTH DIMENSIO NO N NR10-489		093055
FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATION RATE WAS 9.29 RPS. THE SHIFT UPWARD IN THE NOMINAL COMMUTATION RATE, WHICH CAUSED THIS COMBINATOR TO BE REJECTED, WAS THE RESULT OF EITHER A REDUCTION IN THE TORQUE REQUIRED TO DRIVE THE MOTOR. GEARTRAIN, AND SAMPLING SWITCH COMBINATION, OR CHANGES IN THE MOTOR CHARACTERISTICS.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	693-893 UTP-PET 69-01003-39	640803	CD/C	YES	BOURNS NO 2007371707		092312
FAILURE MODE - OUT OF SPECIFICATION. ON 3 JUNE 1964, 9 UNITS FAILED THE POST MINUS 100 DEGREES F PROOF CYCLE WHEN THE ME ERRORS WERE 1.38, 1.17, 1.38, 1.23, AND 1.23 PERCENT OF FULL SCALE VOLTAGE RATIO, RESPECTIVELY. FOUR UNITS FAILED THE ME POST PLUS 300 DEGREES F PROOF CYCLE ON 3 JUNE 1964. THEY HAD ERRORS OF PLUS 1.50, 1.43, 1.43, AND 1.36 PERCENT OF FULL SCALE VOLTAGE RATIO, RESPECTIVELY. THE ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT PLUS INSTRUMENT ERROR OR PLUS OR MINUS 0.15 PERCENT.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY-CAPACITOR ERS	LV-99-24-4694-F FAR 55-13340-5	640802	FACTORY	YES	NO		093016
FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER POWER SUPPLY FAILED DURING BENCH TESTING WHEN NO VOLTAGE COULD BE MEASURED ON THE 5 VOLT DC CALIBRATE VOLTAGE. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A LOOSE CONNECTION IN CAPACITOR C-3 OF THE CHOPPER CIRCUIT RESULTING FROM INSUFFICIENT SOLDER TO MAINTAIN THE PIGTAIL-TO-CAPACITOR FOIL CONNECTION.							
CORRECTIVE ACTION-RECOMMENDED CAPACITORS MANUFACTURED BEFORE NOVEMBER 1965 NOT BE USED. ALSO RECOMMENDED VENDOR TAKE NECESSARY ACTION TO PREVENT RECURRENCE OF THIS TYPE OF FAILURE.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TAPE RECORDER ERS	A-99-24-4837-P	FAR 27-01637-3	111F 840328	FACTORY	YES NO	APPLIED MAGNET MO 1CS
FAILURE MODE-STRUCTURAL. UNIT WAS REJECTED FOR LACK OF OUTPUT AS CAUSED BY TAPE STOPPAGE. FAILURE WAS CONFIRMED AS CAUSED BY TAPE STICKING TO ROLLERS AND ERASE HEAD TOGETHER WITH TRANSPORT ROLLERS BINDING. THIS DISCREPANCY RESULTED FROM TAPE CONTRACTION.						
CORRECTIVE ACTION-REDESIGN OF THE CAPSTAN AND TAPE TENSION ADJUSTMENT ROLLER, INVESTIGATE POSSIBLE COATING MATERIAL FOR HEADS AND ROLLERS TO PREVENT STICKING OF TAPE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER/TIT ERS	A-99-24-4823-P	FAR 27-12113-607	106F 840328	FACTORY	NO NO	
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. ACTUATION OF TELEMETRY TIME TRANSDUCER WAS INDICATED TO BE .02 SECONDS LATE. IT IS CONSIDERED THAT THE TELEMETRY CHECKOUT TRAINER HAD WRONG TIME BASE.						
CORRECTIVE ACTION-TEST EQUIPMENT ENGINEERING WAS REQUESTED TO PROVIDE THE SAME TIME BASE TO ALL TAPE RECORDERS WITH IN THE FACTORY TELEMETRY TRAILERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-99-24-4837-C	FAR 7-01488-839	840328	FACTORY		1041962-3-K
FAILURE MODE-OUT OF SPECIFICATION. THE SUBCARRIER OSCILLATOR FAILED WHEN IT COULD NOT BE ADJUSTED TO OPERATE WITHIN THE HIGH FREQUENCY TOLERANCE LIMITS OF 78610 PLUS OR MINUS 210 CYCLES PER SECOND. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLY RELIABILITY CONTROL.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	LV-99-24-4829-C	FAR 27-11341-045	193D 840323	FACTORY	YES NO	BENDIX
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 18 WAS OPERATING AT 4 PCT BELOW THE LOW FREQUENCY BAND EDGE.						
CORRECTIVE ACTION-NONE, FAILURE ANALYSIS WAS CANCELED.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	3LV-99-24-4849 DISCRIMINATOR	PAR 87-01610-1	840322	FACTORY	YES NO	890197
FAILURE MODE-ERRATIC OPERATION. UNIT WAS REJECTED FOR HIGH OUTPUT FREQUENCY. CAUSED BY SPURIOUS SIGNALS GENERATED BY THE CRYSTAL CONTROLLED DISCRIMINATOR.						
CORRECTIVE ACTION-VENDOR IS HOLDING A TIGHTER TOLERANCE ON DISCRIMINATOR BIAS VOLTAGE. DISCRIMINATOR CRYSTAL SPECIFICATION WAS MODIFIED FOR CLOSER TOLERANCES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C2177.1 TEMPERATURE TRANSDUCER	UTP-PRT 7-01649-9	840322	60/C	YES NO	890212
FAILURE MODE-OPEN (ELECTRICAL). DURING VIBRATION IN THE X-AXIS, THE RESISTANCE BECAME ERRATIC AND VARIED IN EXCESS OF 10 OHMS. THE FAILURE WAS CAUSED BY A BROKEN LEAD WIRE WHICH WAS MAKING INTERMITTENT CONTACT. BREAK CAUSED BY A MIC R IN THE WIRE. (S/N 1944)						
CORRECTIVE ACTION-VENDOR CHANGED PRODUCTION TECHNIQUES AND INSPECTION PROCEDURES TO PRECLUDE THE POSSIBILITY OF ADDITIONAL UNITS WITH NICKED WIRE REACHING 60/C. ALL UNITS PRODUCED PRIOR TO MARCH 1963 WERE SURVEYED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-2167-1 TEMPERATURE TRANSDUCER	UTP-PAT 87-01928-55	840322	60/C	YES NO	890164
FAILURE MODE - OUT OF TOLERANCE. THE TEST SPECIMEN ERROR BAND DURING THE PRE-ACCELERATION PROOF CYCLE WAS PLUS 1.66 PERCENT AND MINUS 0.0 PERCENT. THE ALLOWABLE IS PLUS OR MINUS 1.0 PERCENT. S/N 3050019.						
CORRECTIVE ACTION - NONE. THE PART WAS RETURNED TO THE VENDOR AND THE FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4828-C DEMODULATOR	PAR 7-12077-3	840321	FACTORY	YES NO	890154
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR VOLTAGE NONLINEARITY.						
CORRECTIVE ACTION-NONE. ANALYSIS WAS CANCELED. UNIT PLACED ON WAIVER.						
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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER, CONNECTOR ERS	A-89-24-4888-F A-89-24-4888-F	FAR 87-01444-3	840380	FACTORY	YES KINETICS NO M796	098459
FAILURE MODE-CONTAMINATION. EIGHT DIFFERENTIAL AMPLIFIERS WERE REJECTED WHEN THE ELECTRICAL CONNECTOR PINS WERE FOUND TO BE CORRODED. FAILURE ANALYSIS REVEALED THE VENDOR INADVERTENTLY USED THE WRONG CONNECTOR IN THE DIFFERENTIAL AMPLIFIERS.						
CORRECTIVE ACTION-REQUESTED THAT THE VENDOR TAKE THE NECESSARY STEPS TO PREVENT RECURRENCE OF THIS FAILURE MODE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER ERS	A-89-24-4888 A-89-24-4888	FAR 87-18478-1	840318	FACTORY	YES KINETICS NO M796	098964
FAILURE MODE-ERRATIC OPERATION. DIFFERENTIAL AMPLIFIER FAILED WHEN ITS OUTPUT FLUCTUATED FROM 5.0 TO 9.334 VOLTS DC. SPECIFICATIONS REQUIRE 8.0 VOLTS DC PLUS OR MINUS 80 MILLIVOLTS. FAILURE WAS CONFIRMED BUT THE CAUSE WAS NOT ISOLATED.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONVERTER-WIRING ERS	LV-89-24-4049-F LV-89-24-4049-F	FAR 08-13834-3	8890	FACTORY	YES NO	092733
FAILURE MODE-ERRATIC OPERATION. CONVERTER FAILED WHEN OUTPUT VARIED FROM 0 TO 50 PERCENT OF INFORMATION BANDWIDTH. FAILURE WAS CONFIRMED AND ATTRIBUTED TO AN INTERMITTENT HIGH RESISTANCE SOLDER CONNECTION.						
CORRECTIVE ACTION-ALL SOLDERERS MUST NOW COMPLETE THE NASA SOLDERING SCHOOL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-TRANSISTOR ERS	A-89-24-4710-F A-89-24-4710-F	FAR 87-13499-1	1417	FACTORY	YES BENOIX NO 390900-29	091393
FAILURE MODE-ELECTRICAL SHORT. NO RF OUTPUT. FAILURE CAUSED BY SHORTING OF PT-1807 TRANSISTOR FROM COLLECTOR TO Emitter CAUSE OF SHORTED TRANSISTOR NOT DETERMINED HOWEVER MANUFACTURING DEFECT IS SUSPECTED.						
CORRECTIVE ACTION-NONE, VENDOR REGARDS THIS AS A RANDOM TYPE FAILURE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	A-89-24-4748-F LV-49-24-4611-F	FAR 27-01807-937	640810	FACTORY	NO	SENIX PACIFIC NO 3151133-AAA	893801
FAILURE MODE-FAIL DURING OPERATION. THE OSCILLATORS OUTPUT CONTROL HAD NO EFFECT ON OUTPUT FREQUENCY. FREQUENCY WAS A CONSTANT 112 KILOCYCLES. NO FAILURE EXISTED IN THE SUBCARRIER OSCILLATOR. THERE IS A POSSIBILITY THE CAUSE OF THE PROBLEM REPORTED IS IN THE NEXT ASSEMBLY.							
CORRECTIVE ACTION-EOP 330.597 RELEASED ABOUT SEP. 19, 1964. THIS ALLOWED PRODUCTION PERSONNEL TO FUNCTIONALLY TEST SUSPECTED SUBCARRIER OSCILLATORS ON AN INDIVIDUAL BASIS PRIOR TO REJECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-49-24-4611-F	FAR 27-18881-1	3320	FACTORY	YES	UNITED ELECTRO NO DYNAMICS 14363-H	893804
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR EXCESSIVE NOISE ON SUBCARRIER OSCILLATOR CHANNEL 15.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR GEAR MOTOR ERS	LV-99-24-4853-C	FAR	640514	FACTORY	YES	SENDIX NO 1096485-38 109488-38	893456
FAILURE MODE-OUT OF SPECIFICATION. THE GEAR MOTOR FAILED WHEN IT RAN AT 2.68 RPS. SPECIFICATIONS ALLOW 2.8 PLUS OR MINUS 5 PERCENT RPS. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLV RELIABILITY CONTROL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER ERS	LV-49-24-4609-F	FAR 27-12390-819	3320	FACTORY	NO		894374
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR NARROW INFORMATION BANDWIDTH. FAILURE WAS CAUSED BY INCORRECT TOLERANCES BEING USED TO EVALUATE THE TELEMETRY DATA.							
CORRECTIVE ACTION-SCALE FACTOR WAS CORRECTED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR-WIRING ERS	LV-88-84-4888-F LV-88-84-4810-F	FAR 27-12387-881	840514	FACTORY	YES NO		000010
FAILURE MODE-ELECTRICAL OPEN. THE DEMODULATOR FAILED WHEN OUTPUT WAS MEASURED AT 9.288 VOLTS DC. SPECIFICATIONS REQUIRE 9.000 PLUS OR MINUS 0.130 VOLTS DC. FAILURE WAS CONFIRMED AND ATTRIBUTED TO (NO SOLDER HAVING BEEN PLACED ON THE JUNCTION OF WIRES FROM THE OUTPUT CONTROL POTENTIOMETER PIN 18 OF THE EXTERNAL CONNECTOR AND TERMINAL 4 OF TRANSFORMER T8.							
CORRECTIVE ACTION-RECOMMENDED MANUFACTURING INSPECTION IMPROVE INSPECTION STEPS BEFORE POTTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	89C1849.3 LV-88-84-4881-C	UTP-PAT 68-01008-13	840514	60/C	YES NO	BOURNS 8004208304	001123
FAILURE MODE-OUT OF SPECIFICATION. MAXIMUM ERROR WAS 1.49 PERCENT. ALLOWED IS PLUS OR MINUS 1.0 PERCENT. INSTRUMENT ERROR WAS 0.15 PERCENT. VENDOR CONFIRMED ERROR CAUSED BY OMISSION OF 0.5 MEGOHM RESISTOR IN CALIBRATION.							
CORRECTIVE ACTION-VENDOR CHANGED CALIBRATION PROCEDURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER ERS	A-88-84-4881-C LV-88-84-4810-F	FAR 27-12478-1	840513	FACTORY	YES NO	KINETICS	000182
FAILURE MODE-OUT OF TOLERANCE. UNIT COULD NOT BE ADJUSTED TO ZERO OUTPUT.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS CANCELED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER-WIRING ERS	LV-88-84-4810-F	FAR 27-12388-885	8820	FACTORY	YES NO		000003
FAILURE MODE-ELECTRICAL OPEN. UNIT WAS REJECTED FOR NO COMMUTATION ON CHANNEL 17. FAILURE WAS CONFIRMED AS CAUSED BY A BROKEN WIRE ON RECEPTACLE J18, PIN A.							
CORRECTIVE ACTION-INSPECTION AND PRODUCTION PERSONNEL WERE CAUTIONED ON USE OF GOOD WORKMANSHIP AND PRACTICES.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SLV-99-24-4875-C PRESSURE TRANSDUCER	FAR 89-01003-31	640818	FACTORY	YES	BOURNS NO 800731703	990820
FAILURE MODE-OUT OF SPEC. THE TRANSDUCER HAD A STATIC ERROR OF PLUS 3.14 PERCENT AND MINUS 4.39 PERCENT WHEREAS OHL Y PLUS OR MINUS 1.0 PERCENT IS ALLOWED BY SPECIFICATIONS. FAILURE ANALYSIS OF THIS PRESSURE TRANSDUCER WAS CANCELLED BECAUSE THE TRANSDUCER WAS SENT TO THE VENDOR FOR REWORK.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-LV-A9-24-4877-F PRESSURE TRANSDUCER	FAR 27-01843-9	3520	FACTORY	YES	COLVIN NO 401-A-18-75	990844
FAILURE MODE-LEAK-EXTERNAL. THE TRANSDUCER WAS REJECTED DURING A TELEMETRY SYSTEM CHECK. THE OUTPUT WAS OUT OF BAND . A LEAK WAS DISCOVERED AT THE SOLDER SEAL CASE JUNCTION, CAUSED BY IMPROPER CLEANING OF METAL SURFACES AND POOR SOL DERING.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR IMPROVED HIS SOLDERING TECHNIQUES BY FOLLOWING THE TECHNIQU ES OF NASA SPECIFICATION 1969. IN ANSWER TO BAR REPORT LV-A9-24-8249.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER WIRE ERS	A-09-24-4824-F DIFFERENTIAL AMPLIFIER WIRE	FAR 27-12479-1	640818	FACTORY	YES	KINETICS NO	990881
FAILURE MODE-ELECTRICAL OPEN. UNIT WAS REJECTED FOR FAILURE TO ADJUST TO ZERO VDC. FAILURE WAS CONFIRMED. WAS CAUSE D BY A BROKEN WIRE IN THE POWER SUPPLY GROUND RETURN.							
CORRECTIVE ACTION-VENDOR STATED THAT UNIT WAS INSPECTED FOLLOWING A REPAIR. PROCEDURES IN VENDOR PLANT WERE CHANGED TO REQUIRE INSPECTION ON ALL REPAIRED UNITS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FOUR-CHANNEL LIMITER FILTER ERS	LV-99-24-4916-C FOUR-CHANNEL LIMITER FILTER	FAR 7-11333-5	1950	FACTORY	YES	NO	990839
FAILURE MODE-ERRATIC OPERATION. CHANNEL B HAD INTERMITTENT OUTPUT DURING CHECKOUT.							
CORRECTIVE ACTION-NONE. ANALYSIS WAS WAIVED.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	LV-A9-24-4618-C LV-A9-24-4618-C	FAR 27-11841-948	1950 640508	FACTORY		696166
FAILURE MODE-ERRATIC OPERATION. CHANNEL 14 COMMUTATOR OPERATED INTERMITTENTLY.						
CORRECTIVE ACTION-NONE. ANALYSIS WAS WAIVED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SLV-A9-24-4680-F SLV-A9-24-4680-F	FAR 69-01003-33	7101 640508	FACTORY	YES BOURNS NO 200731703	692818
FAILURE MODE-OPEN (ELECT). THE TRANSDUCER INDICATED AN OPEN CIRCUIT. THE REPORTED FAILURE WAS NOT CONFIRMED, HOWEVER TESTING SHOWED THAT THE TRANSDUCER HAD LOW WIPER TENSION. LOW WIPER TENSION COULD CAUSE THE REPORTED FAILURE.						
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ELECTRICAL FILTER ERS	A-99-24-4670-F A-99-24-4670-F	FAR 27-12287-1	640507	FACTORY	YES NO	696095
FAILURE MODE-OPEN (ELECT). LIMITER FILTER FAILED BY INDICATING OUT OF SPECIFICATION SIGNAL REJECTION OF THE CHANNEL 2 BANDPASS FILTER. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A BROKEN SIGNAL GROUND WIRE.						
CORRECTIVE ACTION-ASSEMBLY AND TEST PERSONNEL WERE CAUTIONED TO USE CARE IN HANDLING THE MODULES TO PREVENT EXCESSIVE FLEXING OF THE LEADS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SLV-A9-24-4668-F SLV-A9-24-4668-F	FAR 69-01003-33	7101 640508	FACTORY	NO BOURNS NO 200731703	692833
FAILURE MODE-OPEN (ELECT). THE TRANSDUCER OUTPUT WAS READING OPEN. MICROSCOPIC EXAMINATION SHOWED THE RESISTIVE WIRE WAS BURNED OPEN. APPARENTLY AN EXCESSIVE VOLTAGE WAS APPLIED TO THE TRANSDUCER. INVESTIGATION OF MISSILE CHECKOUT 3 SHOWED A DEFECTIVE TEST SET HAD BURNED OUT THE TRANSDUCER. DEFECTIVE TEST SET 3953. P/N 27-40400-1, 3/N 3, HAD A SHORT BETWEEN PINS 5 AND 11 OF SWITCH D-7. THE TEST SET WAS REPAIRED.						
CORRECTIVE ACTION-NONE.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4871F ANGULAR POSITION TRANSDUCER	FAR 99-01008-1	640306	FACTORY	YES NO	SERVONOMIC 5041-0101	892391
FAILURE MODE-ELECTRICAL OPEN. THE FAILURE WAS CAUSED BY MISALIGNMENT OF THE RESISTANCE ELEMENT TO THE WIPER TRAVEL PLANE, AND BY LOW WIPER PRESSURE. THIS RESULTED IN AN INTERMITTENT OPEN CIRCUIT ON ONE SIDE OF THE RESISTANCE ELEMENT.							
CORRECTIVE ACTION-A NOTE WAS ADDED TO THE VENDORS DRAWINGS REQUIRING THE COIL BE PARALLEL TO THE POT BASE WITHIN 0.004 INCH IN THE WIPER TRAVEL RANGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4842-F POWER CHANGE/COVER SWITCH-WIRING	FAR 99-01017-3	147F 640308		YES NO	KINETICS	896193
FAILURE MODE-ELECTRICAL OPEN. UNIT FAILED BECAUSE OF OPEN BRUSH LEAD CIRCUIT DUE TO INSUFFICIENT BONDING OF LEAD WIRE.							
CORRECTIVE ACTION-VENDOR HAS REVISED HIS RECEIVING INSPECTION METHODS TO PREVENT RECCURENCE OF THE PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4874-F DETECTOR-WIRING	FAR 99-11118-1	640303	FACTORY	YES NO		893967
FAILURE MODE-ELECTRICAL SHORT. FREQUENCY DETECTOR FAILED WHEN THE OUTPUT VOLTAGE COULD NOT BE ADJUSTED. FAILURE WAS CONFIRMED AND DUE TO A SHORT BETWEEN TWO JUNCTION POINTS ON PRINTED CIRCUIT BOARD B02 CAUSED BY EXCESSIVE SOLDER.							
CORRECTIVE ACTION-ALL PERSONNEL INVOLVED WITH SOLDERING ON THESE BOARDS MUST NOW BE CERTIFIED SOLDERERS BY SATISFACTORY COMPLETION OF A NASA SPONSORED SOLDERING SCHOOL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4651-F ELECTRICAL FILTER TRANSFORMER	FAR 27-12463-3	640304	FACTORY	YES NO	TRIAD	
FAILURE MODE-STRUCTURAL. LIMITER FILTER FAILED WHEN OUTPUT VOLTAGE WAS MEASURED TO BE 0.0076 VOLT AC WHEN 0.047 PLU S OR MINUS 0.005 VOLT AC IS EXPECTED. THE FAILURE WAS CONFIRMED AND ATTRIBUTED TO A BROKEN SECONDARY WINDING LEAD IN TRANSFORMER T-1 DUE TO MOVEMENT OF PIN 2.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							090883
CORRECTIVE ACTION-REQUESTED THAT THE TRANSFORMER VENDOR BE INFORMED OF THE FAILURE AND TO TAKE CORRECTIVE ACTION BY SECURING THE TERMINAL PIN AGAINST MOVEMENT, SUCH AS FLATTENING THE POTTED PORTION OF THE PIN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-98-24-4807-C LV-98-24-4807-C FAR 87-11616-987	640504	ETR	YES NO			094970
FAILURE MODE-LEAK, EXTERNAL. UNIT WAS REJECTED FOR LEAKAGE AT THE CASE AND END CASTING JOINT.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-98-24-3119 CT-98-24-3119 FAR 88-13260-807	1330 640504	ETR	YES NO			893446
FAILURE MODE-ERRATIC OPERATION CHANNEL-12 WAVEFORM SHOWED SPIKING AT BOTH LEADING AND TRAILING SEGMENT EDGES. THE P OLE PHASING WAS FOUND TO BE QUESTIONABLE.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-9D-24-4735-F FAR-LV-9D-24-4735-F FAR 7-01731-1	3300 640504	WTR	YES NO	BOURNS 71724-0-6-752		890643
FAILURE MODE-CONTAMINATION. DURING A FUNCTIONAL TEST, ERRATIC OUTPUT WAS OBSERVED OVER PART OF THE TRANSDUCERS RANGE. EXAMINATION REVEALED A BLACK SMEAR OVER THE AFFECTED PORTION OF THE RESISTIVE ELEMENT.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED THE VENDOR WAS NOTIFIED OF THE FAILURE, AND PRECAUTIONS WERE RE-EMPHASIZED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-4812-P A-98-24-4812-P FAR 87-14355-1	640502	FACTORY	YES NO	CD/C		
FAILURE MODE-ELECTRICAL OPEN. FAILURE MAY HAVE BEEN CAUSED BY MISAPPLIED VOLTAGE TO TELEPAC. NEGATIVE 80 VDC APPLIED TO PIN 3 OF THE UNIT WILL AFFECT DIODE CR-2.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-PERSONNEL WERE CAUTIONED AND INSTRUCTED IN THE CORRECT APPLICATION OF TEST VOLTAGES.							006157
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	A-28-24-4891-P	FAR 27-18113-609	38F 640502	FACTORY	YES NO		004886
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR INADEQUATE INFORMATION BANDWIDTH. FAILURE WAS CONFIRMED AS CAUSED BY IMPROPERLY ADJUSTED EXCITATION VOLTAGE AND LOW GAIN OF THE DIFFERENTIAL AMPLIFIER.							
CORRECTIVE ACTION-RECOMMENDED CHANGES IN CHECKOUT PROCEDURES WHEN TESTING TELEMETERS ABOARD THE MISSILE.							003988
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR TRANSFORMER ERS	A-28-24-4873-F	FAR 27-18357-8	640501	FACTORY	YES NO		
FAILURE MODE-ELECTRICAL OPEN. DEMODULATOR FAILED WHEN THE OUTPUT VOLTAGE COULD NOT BE ADJUSTED TO THE REQUIRED 0.00 0 PLUS OR MINUS 0.005 VOLT DC. FAILURE WAS CONFIRMED AND ATTRIBUTED TO AN OPEN PRIMARY LEAD IN TRANSFORMER T-1.							
CORRECTIVE ACTION-REQUESTED VENDOR IMPROVE THE QUALITY OF SOLDER CONNECTIONS.							000850
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	SLV-A8-24-4822-F	FAR 69-01005-3	7101 640500	FACTORY	YES NO	YES SERVOINCS NO 3041-0301	
FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER FAILED WHEN MEASUREMENT 8 2570 (SUSTAINER PITCH) INDICATED GROUND BETWEEN 175 AND 177 SECONDS AND BETWEEN 192 AND 203 SECONDS. THE FAILURE REPORTED WAS NOT CONFIRMED. CAUSE OF THE FAILURE IS NOT KNOWN BUT COULD HAVE BEEN CAUSED BY IMPROPER ADJUSTMENT OF THE MECHANICAL LINKAGE DRIVING THE TRANSDUCER, BY SLIPPAGE OF THE INPUT SHAFT, OR BY SOME OTHER ABNORMALITY NOT REPORTED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC THERMOCOUPLE ERS	SLV-A8-14-218F	FAR 89-14431	640430	FACTORY	YES NO	YES 60/C NO	
FAILURE MODE-OUT OF TOLERANCE WITH RESPECT TO INSULATION RESISTANCE DUE TO USE OF AN INADEQUATE SEALING COMPOUND WHEN ALLOWED MOISTURE TO ENTER. THIS FAILURE MODE IS APPLICABLE TO SEVEN ADDITIONAL ITEMS OF THIS SAME PART NUMBER.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE MANUFACTURING PROCESS WAS CHANGED TO REQUIRE USE OF A SILICONE RESIN.							993379
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER ERS	A-99-24-4614-P	FAR 99-01120-3	36F 640429	FACTORY	YES NO		993201
FAILURE MODE-OUT OF TOLERANCE. FAILURE WAS CAUSED BY LOW DC VOLTAGE ABOARD THE MISSILE AND SUSCEPTIBILITY OF THE TMC DIFFERENTIAL AMPLIFIER TO 60 CPS NOISE. IDENTICAL FAILURE REPORTED ON FAR A-99-24-4591-P.							
CORRECTIVE ACTION-RECOMMENDED THAT PROCEDURES BE REVISED TO CHECK MISSILE VOLTAGE SUPPLIED TO THE TELEMETERS AND TH AT ALL DIFFERENTIAL AMPLIFIERS BE SURVEYED AND TESTED FOR NOISE SUSCEPTIBILITY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	SLV-A9-24-4598-F	FAR 69-11100-3	640429	FACTORY	YES NO		994565
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR IMPROPER INFORMATION BANDWIDTH. FAILURE WAS CONFIRMED AS CAUSED BY A WIRING ERROR.							
CORRECTIVE ACTION-E.O.P. WAS REVISED TO INCORPORATE WIRING ERROR TEST.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-A-99-24-4712-F	FAR 7-01720-3	640429	FACTORY	YES NO	YES SERVOINCS NO H-74	990663
FAILURE MODE-STRUCTURAL. THE TRANSDUCER WAS OUT OF STATIC ERROR BAND. EXAMINATION REVEALED A CRACK IN THE BOURDON TUBE, DUE TO TOO SHARP A BEND RADIUS IN MANUFACTURE.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR WAS REQUESTED TO INCREASE THE BEND RADIUS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ABSOLUTE PRESSURE TRANSDUCER ERS	CT-99-24-3144	FAR 7-01720-3	1350 640429	ETR	NO NO	NO BOURNS	
FAILURE MODE-ELECTRICAL OPEN. AN ELECTRICAL OPEN WAS DISCOVERED FROM PIN A TO PIN B. CONTINUITY CHECKS REVEALED PIN A TO BE INTERMITTENT. THIS CONDITION WAS LATER ISOLATED TO THE HARNESS BEING USED FOR THE TEST. FURTHER TESTING REVEALED NO DISCREPANCIES.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SIZE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							990699
	CORRECTIVE ACTION-NONE. FAILURE COULD NOT BE CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ANGLAR TRANSDUCER ERS	89-2161 UTP-PAT 89-01008-1	640426	60/C	YES	SERVONICINST-1 NO MC. 3041-0121		990199
	FAILURE MODE - OUT OF TOLERANCE CONDITIONS WERE OBSERVED DURING PROOF CYCLE -A ON 4-29-64, DURING THE PRE-ACCELERATION PROOF CYCLE ON 4-29-64, AND DURING THE POST ACCELERATION PROOF CYCLE ON 4-29-64. S/N 4010168.						
	CORRECTIVE ACTION - NONE. SUBSEQUENT TESTING VERIFIED THAT TEST EQUIPMENT CAUSED THE OUT OF TOLERANCE CONDITIONS. EQUIPMENT RECALIBRATED.						990692
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-LV-99-24-4884-F FAR 7-01731-1	1460 640427	FACTORY	YES	BOURNS NO 71724-D-8-752		
	FAILURE MODE-EXTERNAL LEAKAGE. DURING FINAL CHECKOUT THE TRANSDUCER WAS FOUND TO BE LEAKING AROUND THE ELECTRICAL RECEPTACLE. EXAMINATION REVEALED A CRACK IN THE SOLDER SEAL, CAUSED BY IMPROPER SOLDERING TECHNIQUES.						
	CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR WAS INFORMED OF THE FAILURE AND STATED THAT WORKMANSHIP STANDARDS HAVE IMPROVED SINCE THE DATE OF MANUFACTURE OF THIS PART.						990689
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER TRANSDUCER ERS	FAR-LV-99-24-4700-F FAR 7-01413-3	640425	FACTORY	YES	BORG-WARNER NO 9747-B		
	FAILURE MODE-CONTAMINATION. DURING CALIBRATION IN THE STANDARDS LAB, THE OUTPUT WAS OUTSIDE THE SPECIFIED BAND. CONTAMINATION WAS FOUND IN THE SENSING HEAD.						
	CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR WAS REQUESTED TO IMPROVE QUALITY CONTROL. THE VENDOR COMPLIED BY ESTABLISHING A CLEAN-ROOM FOR ASSEMBLY.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER, WIRING ERS	A-99-24-3449-F FAR 27-01895-3	640424	FACTORY	YES	APPLIED COMPONENTS NO ENTS AC13030-3		
	FAILURE MODE-OPEN (ELECTRICAL). THE UNIT OUTPUT WAS INTERMITTENT. DISASSEMBLY OF THE UNIT REVEALED AN UNSOLDERED CONNECTION. THE CONNECTION WAS THEN SOLDERED AND THE UNIT OPERATED NORMALLY.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-BAR A-88-24-3822 INITIATED QC CORRECTIVE ACTION BY REQUESTING IMPROVED INSPECTION PROCEDURES.							090109
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	FAR-LV-90-24-4844-P	FAR	3500	WTR	YES	BORG-WARNER	090071
	TELEMETRY SET AND TRANSDUCER ACCELEROMETER TRANSDUCER	7-01413-3	840424		NO	8747-B	
FAILURE MODE-CONTAMINATION. THIS IS AN ACCELEROMETER MEASURING MISSILE LONGITUDINAL ACCELERATION. DURING A TEST ON 3500 IT HAD NO OUTPUT. CONTAMINATION WAS FOUND ON THE VIBRATING WIRE HEAD. THE RESULT OF USING AN ACID CORE SOLDER P LUT.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR DISCONTINUED THE USE OF ACID CORE SOLDER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	FAR-A-98-24-4741-P	FAR	640424	FACTORY	YES	BOURNS	090649
	TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER	7-01731-1			NO	71724-D-6-752	
FAILURE MODE-OUT OF TOLERANCE. DURING A CALIBRATION CHECK, THE TRANSDUCER EXCEEDED THE ALLOWABLE OUTPUT ERROR. EXAMINATION REVEALED NO DISCREPANCIES. FAILURE WAS PROBABLY DUE TO MARGINAL MATERIAL PROPERTIES OF THE BOURDON TUBE.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IT WAS RECOMMENDED THAT THE VENDOR REVIEW HIS MATERIAL INSPECTION PROCEDURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ACCESSORY PACKAGE ERS	LV-A8-24-4583-C	FAR	1560	FACTORY	YES		094364
	TELEMETRY SET AND TRANSDUCER ACCESSORY PACKAGE	53-13336-807	640423		NO		
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR OUTPUT LEVEL TOO HIGH. IDENTICAL FAILURES REPORTED ON FAR LV-A 9-24-4588-C, 4593-C, 4596-C, 4600-C, 4603-C.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS NOT PERFORMED ON ANY OF THE FAILURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER CONNECTOR ERS	LV-A8-24-4598-F	FAR	640423	FACTORY	YES		
	TELEMETRY SET AND TRANSDUCER CONNECTOR	55-13666-835			NO		
FAILURE MODE-ELECTRICAL SHORT. ELECTRICAL OPEN CIRCUIT AT RECEPTACLE J-4 OPNK. OPEN CIRCUIT WAS CAUSED BY FUSING OF JUMPER WIRE BETWEEN PINS J AND 8 CAUSED BY CORROSIVE SHORT CIRCUIT HIGH CURRENT PATH.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-BAR LV-A9-24-8308 REQUESTED WATERPROOFING MODIFICATION WHICH SHOULD ELIMINATE RECURRENCE.						893200
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ELECTRICAL REGULATOR DIODE ERS	SLV-99-24-4893	FAR 89-11117-1	640422	FACTORY	YES NO		893817
FAILURE MODE-OUT OF TOLERANCE. REGULATOR ASSEMBLY FAILED WHEN ITS OUTPUT VOLTAGE WAS 16.4 VOLTS DC. SPECIFICATIONS REQUIRE 17.50 PLUS OR MINUS 1 VOLTS DC. FAILURE WAS CONFIRMED AND CAUSED BY MARGINAL COMPONENTS IN THE ASSEMBLY. THE UNIT WILL NOT FUNCTION PROPERLY WITH ALL COMPONENTS WITHIN SPECIFICATIONS IF ZENER DIODE BREAKDOWN VOLTAGE IS NEAR THE LOW LIMIT.							
CORRECTIVE ACTION-RECOMMENDED REVIEW OF THE DESIGN OF THE REGULATOR ASSEMBLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ANGULAR POSITION TRANSDUCER ERS	89-3011	UTP-90AL/PPT 87-01816-7	640422	GD/C	NO NO	SERVONIC NO 5031-0107	890165
FAILURE MODE - OUT OF TOLERANCE. THE UNIT WAS OUT OF TOLERANCE DURING THE PROOF CYCLE AFTER 40,000 CYCLES OF LIFE TEST ON 4-22-64. 5-2-64 AND 5-12-64. S/N 3120015.							
CORRECTIVE ACTION - NONE. THE TEST FIXTURE HAD AN IMPROPER CALIBRATION. FIXTURE RECALIBRATED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRE-FLIGHT CALIBRATOR WIRING ERS	4-99-24-4830-F	FAR 87-13094-1	640421	FACTORY	YES NO	GD/C	896136
FAILURE MODE-OUT OF SPECIFICATION. FAILURE WAS CAUSED BY THREE WIRING ERRORS DURING ASSEMBLY.							
CORRECTIVE ACTION-PRODUCTION AND INSPECTION PERSONNEL WERE ADVISED OF THE FAILURE TEST PROCEDURES WERE REVISED TO INCLUDE A PIN TO PIN CHECKOUT WHICH WILL DETECT SUCH DISCREPANCIES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	SLV-99-24-4838-F	FAR 87-01838-7	340421	FACTORY	YES NO	FIFTH DIMENSION M NRXD-482	
FAILURE MODE-OUT OF SPECIFICATION. THE COMMUTATOR FAILED WHEN IT RAN AT 9.37 RPS. SPECIFICATIONS ALLOW 9.0. PLUS 5-18 PERCENT. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE LACK OF A CONTROL TO REGULATE THE COMMUTATION RATE OF THIS COMMUTATOR.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE DIF TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
093437	CORRECTIVE ACTION-RECOMMENDED THAT THE DESIGN GROUP REPLACE THIS PART NUMBER COMMUTATOR WITH A UNIT EMPLOYING A FEE DBACK SPEED CONTROL SYSTEM. ALSO RECOMMENDED THAT THE VENDOR BURN-IN THE COMMUTATORS FOR 50 HOURS BEFORE INSTALLATIO N IN A NEXT ASSEMBLY.					
090779	INSTRUMENTATION-A/S TELEMETRY SET AND TRANSOSC ANGULAR POSITION TRANSDUCER ERS	FR89C-2011-3 UTP-EUAL/PPT 27-01618-7	640481	FACTORY	YES NO	SERVOMIC 5031-0107
	FAILURE MODE-OUT OF TOLERANCE. THE ERROR BAND WAS SLIGHTLY GREATER THAN SPECIFIED 4 TIMES DURING THE LIFE TEST. APT ER THE SECOND FAILURE THE TRANSDUCER WAS SENT TO THE STANDARDS LAB WHERE THE FAILURE WAS NOT CONFIRMED. AFTER THE TH IRD FAILURE, THE TEST EQUIPMENT WAS SENT TO STANDARDS LAB FOR CHECKING. S/N 3120015.					
	CORRECTIVE ACTION-THE INSTRUMENT ERROR ALLOWANCE WAS INCREASED FROM PLUS OR MINUS 0.06 TO 0.20 PERCENT.					
094558	INSTRUMENTATION-A/S TELEMETRY SET AND TRANSOSC DETECTOR POTENTIOMETER ERS	SLV-98-24-4576F FAR 69-11118-1	640480	FACTORY	YES NO	SPECTROL MO MO080
	FAILURE MODE-ELECTRICAL OPEN. UNIT WAS REJECTED WHEN IT COULD NOT BE ADJUSTED WITHIN TOLERANCE. FAILURE WAS CONFIRM ED AS CAUSED BY AN ELECTRICAL OPEN IN POTENTIOMETER R-8. FAILURE OF THE POT. IS THOUGHT TO BE CAUSED BY EXCESSIVE CU BIENT SURGES.					
	CORRECTIVE ACTION-A SURVEY WAS RECOMMENDED TO REPLACE THESE-60 POTENTIOMETERS WITH HIGHER CURRENT-CAPACITY UNITS. U NIT WAS REPLACED WITH 100 KILOHM UNIT BY ECP 3434.					
093966	INSTRUMENTATION-A/S TELEMETRY SET AND TRANSOSC ELECTRICAL FILTER ERS	SLV-98-24-4676-F FAR 27-01395-5	640480	FACTORY	YES NO	APPLIED COMPO N ENTS AC13030-5
	FAILURE MODE-OUT OF TOLERANCE. TWO BANDPASS FILTERS FAILED WHEN THE OUTPUT AT 675 CPS WAS 0.067 VOLT AC WHEREAS 0.0 70 TO 0.115 VOLT AC IS REQUIRED. FAILURES WERE CONFIRMED AND ATTRIBUTED TO CHANGES IN INDUCTANCE DUE TO AGING OF THE EPOXY OR TO IMPROPER CURING OF THE EPOXY DURING BANDPASS FILTER ASSEMBLY.					
	CORRECTIVE ACTION-RECOMMENDED ALL BANDPASS FILTERS MANUFACTURED BY APPLIED COMPONENTS BEFORE JANUARY, 1964, BE REMO VED FROM ASTRONAUTICS STOCK, CURED AT 160 DEGREES F FOR 4 HOURS, AND THEN RE-TESTED.					

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER ERS	LV-99-24-4313-C	FAR 27-01241-1	640480	FACTORY	YES MAY BERRY NO 114-8	
FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE NOISE.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SLV-A9-24-4667-F	FAR 69-01003-31	7101 640416	FACTORY	NO BOURNS NO 2007371703	
FAILURE MODE-OPEN (ELECT). THE TRANSDUCER OUTPUT WAS READING OPEN. MICROSCOPIC EXAMINATION SHOWED THE RESISTIVE ELEMENT WIRE WAS BURNT OPEN. APPARENTLY AN EXCESSIVE VOLTAGE WAS APPLIED TO THE TRANSDUCER. INVESTIGATION OF MISSILE CHECKOUT SHOWED A DEFECTIVE TEST SET HAD BURNED OUT THE TRANSDUCER. DEFECTIVE TEST SET 3993, P/N 27-40400-1, O/M 3, HAD A SHORT BETWEEN PINS 9 AND 11 OF SWITCH D-7. THE TEST SET WAS REPAIRED.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SLV-A9-24-4669-F	FAR 69-01003-39	7101 640416	FACTORY	YES BOURNS NO 2007371707	
FAILURE MODE-OPEN (ELECT). THE TRANSDUCER OUTPUT WAS REPORTED READING OPEN AT PIN 9.						
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER, FUSE ERS	SLV-A9-24-4382-F	FAR 69-11100-3	640416	FACTORY	YES BENDIX NO	
FAILURE MODE-ELECTRICAL OPEN. MEASUREMENT E-95V OF CHANNEL 13 SEGMENT 19 WAS OUT OF BAND. CAUSE WAS FOUND TO BE AN OPEN CIRCUIT FUSE.						
CORRECTIVE ACTION-FAR SLV-A9-24-0300 RECOMMENDING DISCONTINUANCE OF BELL RINGING CONTINUITY TESTS AND THE USE OF REGULARLY CALIBRATED AND AUTHORIZED TEST EQUIPMENT FOR CHECKOUT.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER POTENTIOMETER ERS	LV-88-84-4890 LV-88-84-4890 7-01931-0	FAR	3920 840418	FACTORY	YES	BOURNS NO 71724-0-33-728
FAILURE MODE-OPEN (ELECT.) FAILURE CAUSED BY OPEN CIRCUIT BETWEEN PINS A TO C AND B TO C. RESISTANCE WINDING WAS PO UND BURNED OPEN DIRECTLY UNDER WIPER CONTACT. EXCESSIVE CURRENT APPLICATION MOST LIKELY OCCURRED WHILE THE TRANSDUCER WAS INSTALLED ON THE MISSILE.						
CORRECTIVE ACTION-ACTION WAS TAKEN TO REMOVE USE OF BUZZERS AND SIMPSON METERS FROM TRANSDUCER CHECKOUT PROCEDURES. ALL CHECKOUT PERSONNEL WERE INSTRUCTED TO USE VTMS OR EQUIVALENT FOR TRANSDUCER CHECKS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER DIFFERENTIAL AMPLIFIER CAPACITOR ERS	LV-88-84-4830-F LV-88-84-4830-F	FAR	840417	FACTORY	YES	APPLIED COMPO NO ENTS DC-1-018
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED BECAUSE OF EXCESSIVE RECOVERY TIME. FAILURE WAS CONFIRMED AS CAUSE D BY A DESIGN INADEQUACY IN THE LOW LEVEL MODULATOR CIRCUIT (INCORRECT SIZE CAPACITOR USED - 330 PICO FARAD INSTEAD O F 360 PICO FARAD.						
CORRECTIVE ACTION-NONE. DELIVERY REQUIREMENTS FOR THIS UNIT HAVE BEEN SATISFIED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ANGULAR POSITION TRANSDUCER ERS	FR89C-3013.1 FR89C-3013.1	UTP-QUAL/PPT 87-01618-7	840417	FACTORY	NO	SERVONIC NO 8055-0107
FAILURE MODE-OUT OF SPECIFICATION. DIMENSION A WAS 0.805 INCHES. SHOULD BE 0.975 PLUS OR MINUS 0.03 INCHES. S/M 310 0002.						
CORRECTIVE ACTION-SPECIFICATION CONTROL DRAWING WAS IN ERROR. DRAWING WILL BE CHANGED SO THAT DIMENSION A WILL BE 0 .875 PLUS OR MINUS 0.030 INCHES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER-PRESSURE TRANSDUCER ERS	PET-TP-8-0384.1A PET-TP-8-0384.1A	UTP-PET 87-01843-9	840417	FACTORY	YES	COLVIN NO 401-A-13-78
FAILURE MODE-OUT OF TOLERANCE. DURING POST VIBRATION AND FINAL SPT. THE UNIT EXHIBITED OUT OF TOLERANCE OUTPUT WITH MAXIMUM ERROR OF 1.975 PERCENT WHEN 1.5 PERCENT IS THE MAXIMUM ALLOWABLE. THE FAILURE WAS CAUSED BY A 0.0 PERCENT P 0.0 PERCENT STEP AT 1 PERCENT FBV/M.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-80/C RETURNED TRANSDUCER TO VENDOR AND INITIATED INSPECTION HOLD ON THIS VENDORS TRANSDUCERS UNIT L SATISFACTORY PET COMPLETION WAS DEMONSTRATED.						000763
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	CT-AP-24-3078-P FAR 89-01107-83	840417	FACTORY	YES	COLVIN NO	401-6-4-78	000697
FAILURE MODE-STRUCTURAL. TRANSDUCER HAD NO ELECTRICAL OUTPUT DURING STANDARDS LAB CHECK. FAILURE ATTRIBUTED TO A BR OKEN WIPER ARM CONDUCTOR CAUSED BY EXCESSIVE HEAT APPLICATION DURING SOLDERING WHICH RESULTED IN STRUCTURAL WEARIN G OF THE WIRE.							
CORRECTIVE ACTION-VENDOR REQUESTED TO INVESTIGATE SOLDERING TECHNIQUES TO PREVENT THIS TYPE FAILURE. RECOMMEND THAT COLVIN PRESSURE TRANSDUCERS NO LONGER BE USED ON STANDARD LAUNCH VEHICLES DUE TO THEIR UNRELIABILITY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	87-3442 UTP-PET 7-01731-5	840416	60/C	YES	BOURHS NO	71781-0-10-758	000102
FAILURE MODE - OUT OF TOLERANCE. DURING THE FINAL SATISFACTORY PERFORMANCE TEST THE OUTPUT AT 25 PSIA (2.5 PERCENT) WAS OUT OF TOLERANCE ON THE DECREASING PORTION OF EACH RUN. S/N 4011890. PET LOT 28.							
CORRECTIVE ACTION - NONE. STANDARDS LABORATORY CHECKED THE UNIT ON 5-18-64 AND THE OUT OF TOLERANCE WAS NOT CONFIRM ED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	LY-AP-24-4368-C FAR	1920 840418	FACTORY	YES	BENDIX NO	1096488-38	002609
FAILURE MODE-OUT OF TOLERANCE BY 8 PERCENT ABOVE NOMINAL 2.5 RPS COMPARED TO 5 PERCENT MAXIMUM.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED BY SLY RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR-WIRING ERS	A-99-24-4808-7 FAR 87-12388-8	840414	FACTORY	YES NO			
FAILURE MODE-ELECTRICAL SHORT. UNIT WAS REJECTED FOR INADEQUATE OUTPUT. FAILURE WAS CONFIRMED AS CAUSED BY A WIRE S HORTED AGAINST TERMINAL 39.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-INSPECTION AND PRODUCTION PERSONNEL WERE ALERTED TO USE CAUTION DURING ASSEMBLY AND CHECKOUT OF THIS UNIT.						994373
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR ERS	LV-AB-24-4860-C	FAR 87-11841-943	1950 840419	FACTORY	YES	BENDIX NO	992606
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 11 COMMUNICATOR SPEED WAS REPORTED 8 PERCENT ABOVE MAXIMUM.							
CORRECTIVE ACTION-MORE. FAILURE ANALYSIS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR68C-1850.2	UTP-PRT 69-01003-39	840419	60/C	VEL	BURNS NO 2007971707	992313
FAILURE MODE - OUT OF SPECIFICATION DURING THE TEMPERATURE RANDOM - SINE VIBRATION TEST THE TRANSDUCER OUTPUT SHOWED SPIKES OF UP TO MINUS 8.0 PERCENT IN THE X-AXIS, MINUS 4.0 PERCENT IN THE Y-AXIS, AND MINUS 15.0 PERCENT IN THE Z-AXIS. THESE SPIKES ARE IN EXCESS OF THE PLUS OR MINUS 3.8 PERCENT TOLERANCE REQUIREMENT OF THE TEST PROCEDURE. THE MODE OF FAILURE WAS MOST LIKELY WIPER LIFT-OFF. S/N 4020937.							
CORRECTIVE ACTION-ON 29 OCTOBER 1964, WAP NO31399, ECP 7871, WAS IN THE SUBMITTAL CYCLE TO SSO. THIS ECP PROPOSES A TRANSDUCER THAT WILL PERFORM THE REQUIRED FUNCTIONS WITH NO ADVERSE EFFECTS FROM THE HIGH FREQUENCY SUPERIMPOSED HYDRAULIC PRESSURE FLUCTUATIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR WIRING ERS	LV-AB-24-4602-F	FAR 7-01486-939	2030 840411	ETR	YES	BENDIX NO 1041868-3K	994569
FAILURE MODE-ERRATIC OPERATION. UNIT WAS REJECTED FOR INTERMITTENT OUTPUT. FAILURE WAS CONFIRMED AS CAUSED BY IMPROPER SOLDERING TECHNIQUES OF INTERNAL WIRING.							
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO REVIEW HIS SOLDERING TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	60A/BK764-011/PS-402-00-883	COUNTDOWN	2030 840410	ETR-1E -800	YES	NO	
FAILURE MODE-FAIL DURING OPERATION. ALL DATA SEGMENTS ON RF 1 CHANNEL 5 WERE BREAKING UP.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE	SITE TIME	PRI OTH	VENOOR NAME VENOOR PART NO
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS DATA NOT USABLE FROM RF NO.1 CHANNEL E.						
VEHICLE EFFECT-COUNTDOWN DELAYED. COUNTDOWN ABORTED AFTER 18 MIN HOLD PRIMARILY DUE TO ADVERSE WEATHER AND SECONDARY ILY DUE TO UNRESOLVED TELEMETRY PROBLEM.						
CORRECTIVE ACTION-CANISTER REPLACED PRIOR TO NEXT ATTEMPTED LAUNCH.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	LV-A9-24-4339-C	FAR 27-11841-943	195D 64041C	FACTORY	YES NO	YES NO
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. CHANNEL 14, COMMUTATOR 14 FAILED TO OPERATE.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED BY 3LV RELIABILITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY-WIRING ERS	LV-A9-24-4370-C	FAR 27-11816-823	64041D	FACTORY	YES NO	YES NO
FAILURE MODE-ELECTRICAL SHORT. REPORTED INTERMITTENT SHORT IN THE 0.6 VOLT DC POWER SUPPLY PLUG.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED BY 3LV RELIABILITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	27-3442	UTP-PET 7-03731-5	64041D	60/C	YES NO	YES NO
FAILURE MODE - OUT OF TOLERANCE. OPERATION WAS NOT WITHIN STATIC ERROR BAND LIMITS DURING INTERMEDIATE PROOF CYCLE FOLLOWING THE 5 MINUTE EXPOSURE TO PLUS 300 DEGREES F. S/N 401-1890. PET LOT 26.						
CORRECTIVE ACTION - NONE. THE OUT OF TOLERANCE CONDITION WAS NOT CONSIDERED SIGNIFICANT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POSITION TRANSDUCER ERS	FR69C-2161.2	UTP-BLT 69-01008-1	640409	FACTORY	YES NO	YES NO
FAILURE MODE-STRUCTURAL. A THIN METAL BAND WHICH CONTROLS THE VIPER POSITION BROKE DURING Z-AXIS VIBRATION TESTING. THIS CAUSED THE OUTPUT TO BE ERRATIC.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							090733
	CORRECTIVE ACTION-NONE. THE FAILURE OCCURRED AFTER THE UNIT WAS SUBJECTED TO TESTING BEYOND THE DESIGN LEVEL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-RESISTOR ERS	LV-A9-24-4337-F	FAR 55-13866-935	1480 640408	FACTORY	YES NO		092612
FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE NOISE ON CHANNEL 9 AND A BOTH DISCREPANCIES WERE CAUSED BY POOR QUALITY COMPONENT STRAIN-GAGE RESISTORS.							
	CORRECTIVE ACTION-AN ACCEPTABLE ALTERNATE RESISTOR P/N 66-75097-002 WILL REPLACE THE FAULTY P/N 75901-965 PART.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FREQUNCY DETECTOR CAPACITOR ERS	SLV-99-24-4840-F	FAR 69-11118-1	640407	FACTORY	YES NO		096194
FAILURE MODE-ELECTRICAL SHORT. UNIT WAS REJECTED FOR FAILURE TO RESPOND TO ADJUSTMENT. FAILURE WAS CONFIRMED AS CAUSED BY AN ELECTRICAL SHORT BETWEEN THE CASE OF CAPACITOR C-2 (PIN 91-34007-073) AND OUTPUT CONDUCTOR TERMINALS OF CR -1 AND CR-2.							
	CORRECTIVE ACTION-DESIGN CHANGE WAS MADE TO INCORPORATE INSULATION BLEEVING ON THE CAPACITORS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-TRANSMITTER ERS	LV-A9-24-4341-C	FAR 27-11341-948	1950 640407	FACTORY	YES NO		092614
FAILURE MODE-OUT OF TOLERANCE. IMPROPER MEASUREMENTS WERE RECEIVED AT 6297V AND 6298V.							
	CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR MODULE ERS	A-99-24-4334-F	FAR 69-11110-801	640407	FACTORY	YES NO		
FAILURE MODE-OUT OF TOLERANCE. MODULE INTERNAL WIRING DISCOLORATION CAUSED BY THE PRESENCE OF CHLORIDES.							
CORRECTIVE ACTION-FAR A-99-24-9289 RECOMMENDING THAT POTTING CURING CATALYST BE COMPATIBLE WITH ALL POLYETHYLENE GL							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SIZE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
EVALUING USED WHICH WOULD ELIMINATE CHLORIDE FORMATION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR89C-1880-B	UTP-PRT 69-01003-39	640407	60/C	YES NO	YES SOURNS NO 8007571707
FAILURE MODE-OUT OF SPECIFICATION. DURING THE POST 300 DEGREES F. PROOF CYCLE, THE MAXIMUM ERROR WAS PLUS 1.42 PERCENT OF FULL SCALE OUTPUT. THE ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT PLUS INSTRUMENT ERROR OF PLUS OR MINUS 0.15 PERCENT. THE VENDOR DETERMINED THAT THE DISCREPANCY WAS CAUSED BY PARTS NOT BEING TEMPERATURE STABILIZED COMPLETELY.						
CORRECTIVE ACTION-THE VENDOR STATED THAT P/N 69-01003-39, -31, -33, -35, AND -39 UNITS WILL BE 100 PERCENT TEMPERATURE CYCLED PRIOR TO FINAL TESTING, TO STABILIZE THE TRANSDUCERS. THIS WILL BE EFFECTIVE ON 8/N 4071430 AND ON STARTING 20 JULY 1964.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR-TRANSFORMER ERS	A-99-24-4808-F FR89A2176-1	FAR 27-01281-1	640406	FACTORY	NO	AC ELECTRONICS NO 982816
FAILURE MODE-OUT OF TOLERANCE. TWO UNITS WERE REJECTED FOR IMPROPER TURN-RATIO. FAILURE WAS CONFIRMED AS CAUSED BY DAMAGED WINDING INSULATION RESULTING FROM EXCESSIVE APPLIED CURRENT. N/A 27-18329.						
CORRECTIVE ACTION-RESPONSIBLE TEST PERSONNEL WERE CAUTIONED IN USING PROPER TEST VOLTAGES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FR89A2176-1	UTP-SLT 69-11100-1	640406	60/C	YES NO	
FAILURE MODE-STRUCTURAL. TRANSMITTER AT 160 DEGREES F, SLT Z-AXIS RANDOM-SINE 12 GRMS SHEEP IN PROGRESS. RF POWER OUTPUT DROPPED TO ZERO FROM 8 WATTS WHEN SINUSOIDAL FREQUENCY REACHED 800 CPS. INVESTIGATION REVEALED EXTENSIVE STRUCTURAL DAMAGE INCLUDING, BROKEN TERMINAL PINS AND WIRES, BROKEN AND LOOSE RESISTORS AND CAPACITORS, A FRACTURE AND MISSING RIVETS IN THE METAL FRAME, LOOSE TIE DOWN SCREWS, ETC. THIS FAILURE WAS ATTRIBUTED TO INADEQUATE HARNESS WIRE LAYOUT AND TIE DOWNS.						
CORRECTIVE ACTION-REDESIGN OF THE HARNESS WIRE LAYOUT TO ADD ADDITIONAL TIE DOWNS, FOAM, AND OTHER SUPPORT AS REQUIRED TO PREVENT COMPONENT MOVEMENT AND WIRE BREAKAGE, ESPECIALLY NEAR TERMINAL BOARDS AND CONNECTORS. ECP 7814. REF. FR89A-2-216-C.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-RESISTOR ERS	LV-A9-24-4563-F	FAR 08-18666-038	146D 640406	FACTORY YES	NO	992605
FAILURE MODE-OUT OF TOLERANCE. CHANNEL E SEGMENTS 13 THROUGH 27 AND 37 THROUGH 69 MEASUREMENT A-1775 HAD EXCESSIVE BREAKUP CAUSED BY POOR ELECTRICAL CONNECTION BETWEEN THE RESISTANCE WIRE AND RESISTOR LEAD.						
CORRECTIVE ACTION-MEMO FROM DESIGN GROUP DATED 640413 INDICATING THAT MISSILE 146D IS THE LAST SLY ARTICLE TO USE Y HE P/N 98-73901-364 AND -985 RESISTOR STRAIN GAGE ACCOMPLISHED BY CIC 87463.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ANGLAR POSITION TRANSDUCER ERS	FR69C-3011.1	UTP-QUAL/PPT 27-01816-7	640406	FACTORY YES	YES NO	990762
FAILURE MODE-LEAK-EXTERNAL. ON THE IMMERSION TEST THE TRANSDUCER LEAKED IMMEDIATELY AFTER BEING PLACED IN WATER. ER FOR ON POST IMMERSION TEST PROOF CYCLE WAS PLUS 0.06 AND MINUS 3.15 PERCENT. ALLOWED 18 PLUS OR MINUS 0.75 PERCENT. LEAK WAS AT THE POINT WHERE THE CABLE ENTERS THE CASE AND WAS CAUSED BY ABUSE. S/N 3100002.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-LV-98-24-4838-F	FAR 7-01731-7	640406	FACTORY YES	YES NO	990694
FAILURE MODE-CONTAMINATION. WHILE BEING CHECKED IN THE FACTORY, THE TRANSDUCER SHOWED ERRATIC OUTPUT OVER PART OF T HE RANGE. EXAMINATION SHOWED THAT A LIGHT CONTACT FORCE EXISTED BETWEEN THE WIPER ARM AND THE RESISTIVE ELEMENT, AND THAT CONTAMINANTS WERE ON THE ELEMENT, RESULTING FROM AN IMPROPER CLEANING PROCESS.						
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR NOW HAS AN IMPROVED CLEANING PROCESS, AND IS GIVING 100 PER CENT INSPECTION TO WIPER ARM FORCE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PAT-TP-69P-2167-1	UTP-PAT 27-01888-88	640406	FACTORY YES	YES NO	99103-21
FAILURE MODE-OUT OF TOLERANCE. DURING INITIAL PROOF CYCLE, SPECIMEN S/N 3100098 OUTPUT DID NOT CHANGE WHEN EXERCISE 0 AT PLUS 25 PSID. FAILURE WAS PROBABLY DUE TO OVERPRESSURIZATION BUT DEFINITE CAUSE WAS NOT ISOLATED.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-6D/C AND VENDOR CONDUCTED FAILURE INVESTIGATION. TEST EQUIPMENT WAS RECHECKED AND TEST PERSONNEL WERE RE-INSTRUCTED.						090619
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSFORMER ERS	A-98-24-4620-C	FAR 27-01829-1	111F 640404	FACTORY	YES ACI NO ACI233		090162
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED DURING CHECKOUT FOR EXCEEDING EXCITATION CURRENT VALUES BY 9 MILLI AMPERES. N/A 27-12412-11.							
CORRECTIVE ACTION-NONE. ANALYSIS WAS CANCELED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER ERS	CT-99-24-3148	FAR 27-01841-1	640404	FACTORY	YES MAYBERRY NO 114-9		092496
FAILURE MODE-OUT OF TOLERANCE. OUTPUT IMPEDANCE APPEARED TO BE LOW.							
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-WIRING ERS	FR69A2176-1 DATED 1 MAY 1964	UTP-SLT 09-11100-1	640403	6D/C	YES 6D/C NO 09-11100-1		091854
FAILURE MODE-FAIL DURING OPERATION. TEST SPECIMEN AT AMBIENT TEMPERATURE WITH X-AXIS RANDOM-SINE LEVEL-(112 GRMS) SWEEP IN PROGRESS-EXCESSIVE LINEARITY ERRORS NOTED FOR CHANNEL A AND E AFTER X-AXIS VIBRATION. MEASUREMENTS DIV AND U1 34X WERE LOST. WIRE 8 TO PIN 1 OF COMMUTATOR CONNECTOR J29 AND WIRES TO TERMINAL BOARD 4 PINS 23 AND 24 WERE BROKEN.							
CORRECTIVE ACTION-REDESIGN OF THE HARNESS WIRE LAYOUT TO ADD ADDITIONAL TIE DOWNS, FOAM, AND OTHER SUPPORT AS REQUIRED TO PREVENT MOVEMENT AND WIRE BREAKAGE, ESPECIALLY NEAR TERMINAL BOARDS AND CONNECTORS. ECP 7914 WAS SUBSEQUENTLY IMPLEMENTED AND ADDED TIE DOWN AND FOAM. REF. FR 694-2-210C.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL-PRESSURE TRANSDUCER ERS	LV-A9-24-4598-F	FAR 87-93900-033	1950 640403	FACTORY	YES SERVONIC NO		
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER READ 7 PERCENT OUTPUT WITH ZERO PRESS APPLIED. THE FAILURE WAS CAUSED BY A WEAKENED WIRE IN THE WIPER ASSEMBLY. THE WIRE WAS WEAKENED WHEN IT WAS CRUSHED DURING WELDING.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
<p>CORRECTIVE ACTION-THIS UNIT WAS BUILT IN AUGUST 1961. IN 1963, THE VENDOR IMPROVED HIS SPOT WELDING, SOLDERING AND CONTAMINATION CONTROL PROCEDURES. THE VENDOR DRAWING WAS CLARIFIED BY A NOTE AFTER THIS FAILURE. THE CLARIFICATION WAS INCLUDED IN SPECIFICATION CONTROL DRAWING 87-98900-003, REVISION-E, EFFECTIVE 30 NOVEMBER 1964.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	68C2035	UTP-PAT 69-01003-29	640403	6D/C	YES BOURNS NO 7007371702	
<p>FAILURE MODE - OUT OF TOLERANCE. DURING THE INITIAL PROOF CYCLE FOR PAT THE UNIT FAILED THE RESOLUTION TEST. THERE WERE 90 STEPS OUT OF A TOTAL OF 449 STEPS THAT WERE GREATER THAN .25 PERCENT FULL SCALE, AND THREE STEPS GREATER THAN .30 PERCENT. THE SPEC. ALLOWS 13 STEPS OF .25 PERCENT, AND ZERO STEPS OF .30 PERCENT. S/N 3040075.</p>						
<p>CORRECTIVE ACTION - NONE. THE FAILURE COULD NOT BE CONFIRMED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-TRANSMITTER ERS	SLV-99-24-4397-F	FAR	640402	FACTORY	YES BENDIX PACIFIC NO 3131966	
<p>FAILURE MODE-ELECTRICAL SHORT. UNIT WAS REJECTED BECAUSE OF SHORT CIRCUIT BETWEEN 28 VDC AND COMMON GROUND. FAILURE WAS CONFIRMED AS CAUSED BY A MOMENTARY CONTACT BETWEEN A TERMINAL POST AND THE CASE. THE SHORT ONLY APPEARED WHILE THE UNIT WAS INSTALLED.</p>						
<p>CORRECTIVE ACTION-VENDOR TOOK ACTION TO REDESIGN FOR GREATER CLEARANCE BETWEEN THE 28 VDC TERMINAL AND THE CASE. AD EQUATE INSULATION WILL ALSO BE INSTALLED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	69C-2040	UTP-PAT 69-01003-31	640402	6D/C	YES BOURNS NO 7007371703	
<p>FAILURE MODE - OUT OF TOLERANCE. THE UNIT WAS OUT OF TOLERANCE 1) DURING THE POST X-AXIS VIBRATION PROOF CYCLE ON 4 -2-64 (PAT), 2) DURING THE INITIAL PROOF CYCLE OF THE PRT SATISFACTORY PERFORMANCE TEST. (3 PROCEDURAL STEPS WERE OUT OF TOLERANCE ON 4-5-64). S/N 3080441.</p>						
<p>CORRECTIVE ACTION - NONE. THE FAILURES COULD NOT BE CONFIRMED.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIV	SITE FACTORY	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER BELLONDS ERS	LV-99-24-4387-F TRANSDUCER BELLONDS	FAR 27-01843-7	640331	FACTORY	NO	BOURNS NO 42011-0-100-75 E	090560
FAILURE MODE-STRUCTURAL. THE TRANSDUCER WAS REJECTED WHEN IT FAILED THE FUNCTIONAL TEST. THE FAILURE WAS CONFIRMED. THE 8 PERCENT UNIFORM ERROR IS ATTRIBUTED TO A BELLONDS CHARACTERISTIC CHANGE CAUSED BY OVERPRESSURIZATION. THIS OVERPRESSURIZATION MOST LIKELY OCCURRED DURING TRANSDUCER CLEANING, SINCE THE TRANSDUCER WAS NEVER ON A MISSILE.							
CORRECTIVE ACTION-IN NOVEMBER 1963 INSPECTION PERSONNEL BEGAN COMPLYING WITH THE LATEST REVISION OF MS-83-248 FOR CLEANING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER COMPOSITE AMPLIFIER ERS	A-89-24-4384-F COMPOSITE AMPLIFIER	FAR 27-01808-1	L110 640330	FACTORY	YES	BENDIX NO 1063520	094563
FAILURE MODE-ERRATIC OPERATION. UNIT WAS REJECTED FOR NOISY OUTPUT. FAILURE BELIEVED CAUSED BY FAULTY INSTALLATION.							
CORRECTIVE ACTION-PROCEDURES FOR SUBSYSTEM TROUBLESHOOTING WERE REVISED. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TEMPERATURE TRANSDUCER ERS	89C-8037 TEMPERATURE TRANSDUCER	UTP-PRT 7-01833-3	640330	60/C	NO	LEWIS NO 568348	091036
FAILURE MODE-OUT OF TOLERANCE. THE RESISTANCE OF BOTH ELEMENTS WAS OUT OF TOLERANCE DURING Y-AXIS VIBRATION. CAUSE OF FAILURE WAS THE REVERSE WIRING OF SEGMENTS OF THE RESISTANCE BRIDGE USED IN THE TEST SET-UP.							
CORRECTIVE ACTION-THE TEST LAB WAS NOTIFIED OF THE PROBLEM AND ASKED TO DOUBLE CHECK SET-UP IN FUTURE TESTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER SIGNAL CONDITIONER-SCREW ERS	LV-90-24-4818-F SIGNAL CONDITIONER-SCREW	FAR 27-18914-807	640327	WTR	YES	60/C NO	090161
FAILURE MODE-CONTAMINATION. FAILURE WAS CAUSED BY A LOOSE SCREW, FREE TO FALL INSIDE THE CANISTER.							
CORRECTIVE ACTION-SHOP AND INSPECTION PERSONNEL WERE ADVISED OF THE FAILURE AND HAVE INSTITUTED IMPROVED CONTROLS BY USE OF LEAD SEALS AND BDI (BREAK OF INSPECTION) RECORDS.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4831-F LV-99-24-4831-F TELEMETRY SET AND TRANSDUC ERS	FAR 7-01414	1400 640324	FACTORY FACTORY	YES YES	HENDIX HENDIX	092617
FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE NOISE OF 10 PERCENT WHERE 8 PERCENT IS ALLOWED. CAUSED BY INSTALLATION OF IMPROPER OUTPUT FILTER.							
CORRECTIVE ACTION-CHANGE OUTPUT FILTER REQUIREMENT (60/C DESIGN MEMO 349-3-64-69 DATED 640331).							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4522-C LV-99-24-4522-C TELEMETRY SET AND TRANSDUC ERS	FAR 7-01414	640324	FACTORY FACTORY	YES YES	HENDIX HENDIX	092598
FAILURE MODE-ERRATIC OPERATION. UNSTABLE OUTPUT.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-90-24-4568-F A-90-24-4568-F TELEMETRY SET AND TRANSDUC ERS	FAR 7-01414	110F 640324	WTR WTR	YES YES	60/C 60/C	092604
FAILURE MODE-ELECTRICAL OPEN CIRCUIT OF PIN C WIRE FROM POOR SOLDERING.							
CORRECTIVE ACTION-CERTIFICATION OF FACTORY SOLDERING PERSONNEL TO NASA SOLDERING SPECIFICATIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4841-F A-99-24-4841-F TELEMETRY SET AND TRANSDUC ERS	FAR 7-01731-5	640323	FACTORY FACTORY	YES YES	BOURNS BOURNS	091552
FAILURE MODE-CONTAMINATION. FAILURE COULD NOT BE RECONFIRMED BUT ANALYSIS DISCLOSED THAT UNIT WAS CONTAMINATED.							
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO TAKE STEPS TO ELIMINATE CONTAMINATION IN THE PRESSURE TRANSDUCER.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE TIME OF DAY	PRI VENDOR NAME	OTH VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-BLV-99-24-4827-F LV-99-24-4827-F PRESSURE TRANSDUCER	FAR 7-C1731-1	640328	FACTORY	YES BOURNS NO 71724-G-6-732	890693
FAILURE MODE-OUT OF TOLERANCE. WHEN CHECKED IN THE STANDARDS LAB, THE STATIC ERROR EXCEEDED THE ALLOWABLE BAND NEAR THE UPPER END OF THE RANGE. FUNCTIONAL TESTS, DISASSEMBLY, AND EXAMINATION DID NOT REVEAL ANY DISCREPANCIES.						
CORRECTIVE ACTION-NONE. THE FAILURE WAS CONFIRMED, BUT THE CAUSE COULD NOT BE DETERMINED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-99-24-4577-C OSCILLATOR	FAR 27-11841-939	2040 640322	FACTORY	YES BENDIX-PACIFIC NO	894339
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR DISTORTIONS OF SEGMENTS 1 AND 2 ON CHANNEL 13.						
CORRECTIVE ACTION-NONE. NO FAILURE ANALYSIS PERFORMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER ERS	LV-99-24-4599-F DIFFERENTIAL AMPLIFIER	FAR 27-01018-1	640321	FACTORY	YES APPLIED ELECTRONICS NO ONICS DC-1-018	894371
FAILURE MODE-ERRATIC OPERATION. UNIT WAS REJECTED FOR GAIN INSTABILITY. FAILURE WAS CONFIRMED BUT THE CAUSE WAS NOT DETERMINED. UNIT WAS DAMAGED DURING DISASSEMBLY ANALYSIS.						
CORRECTIVE ACTION-NONE. EXACT CAUSE OF FAILURE WAS NOT DETERMINED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRE-FLIGHT CALIBRATOR ERS	A-99-24-4595-F PRE-FLIGHT CALIBRATOR	FAR 27-13094-1	640321	FACTORY	YES 60/C NO	892343
FAILURE MODE-ELECTRICAL SHORT CIRCUIT OF P1-3 AND P1-8 WAS FOUND DURING CHECKOUT. AN UNSPECIFIED JUMPER CAUSING THE SHORT CIRCUIT PLUS OTHER POOR QUALITY CONSTRUCTION WAS FOUND. THE MANUFACTURING TEST SET SHOULD REJECT THE DISCREPANCY, BUT DID NOT.						
CORRECTIVE ACTION-UPDATE OF MANUFACTURING TEST EQUIPMENT AND MANUFACTURING PROCEDURES.						

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SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER EVENTS SIGNAL ASSEMBLY ERS	A-99-24-4239-F	FAR 27-18374-803	640320	FACTORY	YES	607C NO
FAILURE MODE-ELECTRICAL SHORT. THE UNIT'S OUTPUT COULD NOT BE ADJUSTED TO THE REQUIRED ZERO VOLTAGE. CAUSED BY SHORT CIRCUITING OF TRANSFORMER T-1 LEAD 7 TO RESISTOR R-18 AT TERMINATION SS BOARD 1.						
CORRECTIVE ACTION-RAR A-99-24-8313 REQUESTING IMPROVED PACKAGING AND CLOSER INSPECTION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	FR99C-1830-E	UTP-PAT 69-01008-39	640320	607C	YES	DOURNS NO 2007372707
FAILURE MODE-OUT OF SPECIFICATION. DURING THE RESOLUTION TEST, 32.7 PERCENT OF THE 391 STEPS EXCEEDED 0.25 PERCENT OF FULL SCALE OUTPUT. ALLOWABLE TOLERANCE IS 3 PERCENT OF THE TOTAL STEPS EXCEEDING 0.25 PERCENT RESOLUTION. FAILURE ANALYSIS BY THE VENDOR INDICATED THAT THE OUT OF TOLERANCE CONDITION WAS CAUSED BY THE INSTALLATION OF A WRONG ELEMENT.						
CORRECTIVE ACTION-REVIEW OF THE VENDOR'S RECORDS ON OTHER UNITS INDICATES THAT FURTHER DISCREPANCIES OF THIS FAILURE ARE UNLIKELY. SEE VCAR 9271-64 AND CARR F-4194 8C-1.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TEMPERATURE TRANSDUCER ERS	FR99C-2176-1	UTP-SLT 7-01648-1	640320	FACTORY	NO	ROSENHOUT NO 134AC
FAILURE MODE-OUT OF TOLERANCE. DURING ACCELERATION TEST (BLT), UNIT SHOWED 434.8 OHMS RESISTANCE AT -320 DEGREES F WHERE 434.8 OHMS ARE EXPECTED. FAILURE NOT CONFIRMED THE FAILURE WAS FOUND TO HAVE RESULTED FROM TEST EQUIPMENT CALIBRATION INACCURACY.						
CORRECTIVE ACTION-NONE REQUIRED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	CT-98-53-055	FAR 7-01780-3	AC-3 640320	ETR	YES	SERVOINICS NO N-75
FAILURE MODE-INTERNAL LEAK. THE UNIT FAILED WHEN THE OUTPUT READ 90 PERCENT LOW. THE FAILURE IS ATTRIBUTED TO SOUND ON TUBE LEAKAGE DUE TO IMPROPER FLUXING OF THE BRAZED ENDCAP.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE BOURDON TUBE DESIGN WAS MODIFIED AFTER THE ASSEMBLY DATE TO REQUIRE A WELDED CAP.							990664
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	FAR-A-49-24-4823-F A-49-24-4801-F PRESSURE TRANSDUCER	FAR 27-01243-7	147F 940320	FACTORY	NO	BOURNS NO 48011-0-100-75 2	990647
FAILURE MODE-OUT OF TOLERANCE. DURING MISSILE CHECKOUT, THE TRANSDUCER OUTPUT WAS REPORTED TO BE OUT OF SPECIFICATION. EXAMINATION REVEALED NO FAULT. BUT IT WAS DETERMINED THAT GAGE PRESSURE HAD BEEN APPLIED INSTEAD OF ABSOLUTE.							
CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. PERSONNEL WERE CAUTIONED TO APPLY THE CORRECT INPUT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER-ELECTRICAL CON ECTOR ERR	A-49-24-4801-F PRESSURE TRANSDUCER-ELECTRICAL CON ECTOR	FAR 27-01243-9	940320	FACTORY	YES	BOURNS NO 48011-0-150-75 2	990631
FAILURE MODE-OUT OF TOLERANCE. OUTPUT OF THE TRANSDUCER WAS REPORTED TO BE LOW. THE FAILURE WAS CAUSED BY PORES IN THE SOLDER BOND OF THE ELECTRICAL CONNECTOR. PREVIOUS ANALYSES HAVE SHOWN THAT THE PORES WERE A RESULT OF HEAT APPLIED TO THE RIVET SEAL OF THE TRANSDUCER CASE.							
CORRECTIVE ACTION-EFFECTIVE 20 OCTOBER 1963 THE VENDOR STATED THAT HE WOULD TAKE THE FOLLOWING ACTION. A BALL SEAL IS REPLACING THE RIVET SEAL ON THESE PRESSURE TRANSDUCERS TO REDUCE HEATING THE SOLDER AND TO PROVIDE A MORE RELIABLE SEAL. THIS IS BEING DONE BECAUSE HEATING OF THE RIVET SEAL PRODUCES A DEFECTIVE JOINT IN THE ELECTRICAL CONNECTOR TO CASE SOLDER JOINT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	69-1795-1 PRESSURE TRANSDUCER	UTP-PRT 27-01952-13	940320	GD/C	YES	WIANCKO NO P2-4108-13	990163
FAILURE MODE - OUT OF TOLERANCE. DURING POST PROOF CYCLE OF Y-AXIS TEMPERATURE - VIBRATION TEST, THE SPECIMEN OUTPUT EXCEEDED THE ALLOWABLE TOLERANCE OF PLUS OR MINUS 1.0 PERCENT FSO. THE MAXIMUM ERROR WAS 1.28 PERCENT FSO. INSTRUMENTATION ERROR IS PLUS OR MINUS 0.21 PERCENT FSO. 6/N 3110114.							
CORRECTIVE ACTION - NONE. NO OTHER OUT OF TOLERANCE CONDITIONS OCCURRED DURING THE REMAINDER OF THE PRT TESTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	FR69C-2166.2 PRESSURE TRANSDUCER	UTP-PRT 69-01004-23	940319	FACTORY	NO	BOURNS NO 2023203001	
FAILURE MODE-OUT OF TOLERANCE. ON FOUR SEPARATE TESTS, AN ERROR WAS REPORTED TO BE GREATER THAN ALLOWED. THREE OF THE TESTS WERE PERIODIC RE-EVALUATION TESTS AND ONE WAS A STRESS LIMIT TEST. ALL FOUR TESTS WERE CONDUCTED ON ONE TRA							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRE OTH	VENDOR NAME VENDOR PART NO	
REDUCER.							990782
CORRECTIVE ACTION-NONE. QUESTIONABLE TEST EQUIPMENT, SETUP AND TECHNIQUE ARE INDICATED INSTEAD OF PRODUCT FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR ERS	SLV-99-24-4348-C	FAR	840318	FACTORY	YES	BENDIX NO 1086489-48	992833
FAILURE MODE-OUT OF TOLERANCE. GEAR MOTOR WAS RUNNING FAST.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR POTENTIOMETER ERS	SLV-99-24-4375-F	FAR	7108	FACTORY	YES	SP-CTROL NO	991436
FAILURE MODE-ELECTRICAL OPEN. THE FREQUENCY DETECTOR OUTPUT WAS 8.487 VOLTS DC. THE REQUIRED OUTPUT IS 8.50 PLUS OR MINUS 0.025 VOLTS DC. THE FAILURE WAS CAUSED BY POTENTIOMETER R-8 BEING BURNED OPEN BY EXCESSIVE CURRENT. NORMAL CURRENT SURGES, WHEN THE EQUIPMENT IS TURNED ON, BURN THESE POTENTIOMETERS OUT IN A LARGE NUMBER OF INSTANCES. THE POTENTIOMETER WAS A SPECTROL MODEL-60, 88-75183-011.							
CORRECTIVE ACTION-SPECTROL FOUND A FAULTY FIXTURE CAUSED RESISTANCE WIRE BREAKS. THE FIXTURE WAS CORRECTED. SPECTROL MODEL-60, 100-KILO HM WAS DECLARED INACTIVE FOR NEW DESIGN ON 15 FEB. 1963, AND REMOVED FROM THE PREFERRED PARTS LIST IN MARCH 1964.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-99-24-4337-F	FAR	840317	FACTORY	YES	BOURNS NO 42013-0-30-752	993524
FAILURE MODE-OUT OF SPECIFICATION. STATIC ERROR BAND WAS PLUS 3.0 PCT WHEN PLUS OR MINUS 1.0 PERCENT WAS REQUIRED. FAILURE CONFIRMED. CAUSED BY PRESSURE SURGES INDUCED WHILE CLEANING THE TRANSDUCER AFTER CALIBRATION. TRANSDUCER RANGE IS 0-50 PSIA. THE SYRING TYPE CLEANERS USED ARE CAPABLE OF PRODUCING PRESSURE SURGES OF UP TO 200 PSIA.							
CORRECTIVE ACTION-60/C REVISED WPS 93.84 TO SPECIFY CAUTION AGAINST OVERPRESSURIZATION DURING CLEANING. BOURNS TOOK SIMILAR ACTION AND INSTITUTED A CALIBRATION CHECK AFTER CLEANING.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE DIP TIME	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC REGULATOR ASSEMBLY TRANSDUCER ERS	SLV-99-24-4533-F A-99-24-4787-F	FAR 99-11117-1	640317	FACTORY	YES NO		990601
FAILURE MODE-OUT OF TOLERANCE DUE TO A LOW OUTPUT VOLTAGE. FAILURE ANALYSIS FOUND A FAULTY 6-1 TRANSISTOR (2N556) 1 IN THE REGULATOR CIRCUIT.							
CORRECTIVE ACTION-PREPOTTING ELECTRICAL TEST SPECIFIED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	A-99-24-4787-F	FAR	640317	FACTORY	YES NO	YES BENDIX PACIFIC	990309
FAILURE MODE-ERRATIC OPERATION. THE INITIAL FREQUENCY WAS 230.0 MEGACYCLES, AFTER 3 MINUTES OF OPERATION THE FREQUENCY JUMPED TO 240.182 MEGACYCLES.							
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR-49C-2033.1	UTP-BLT 69-01003-39	640317	FACTORY	YES NO	YES BOURNS NO 200731702	990771
FAILURE MODE-OUT OF TOLERANCE. DURING BLT Z- AXIS VIBRATION-TEMPERATURE TEST, THE TRANSDUCER WAS OUT OF TOLERANCE AT THREE FREQUENCIES. 8/M 2110714.							
CORRECTIVE ACTION-NONE. THE FAILURE OCCURRED AFTER THE TRANSDUCER WAS SUBJECTED TO TESTING BEYOND THE DESIGN LEVEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER TRANSDUCER ERS	A-99-24-4567-F	FAR 7-01413-5	640317	FACTORY	YES NO	YES BORO-WARNER NO 97478	990633
FAILURE MODE-CONTAMINATION. THE UNIT FAILED WHEN THE OUTPUT WAS 1.45 VOLTS AC RMS. THE SPECIFICATION ALLOWS 1.01 TO 1.25 VOLTS AC RMS. THE FAILURE WAS CAUSED BY RUST CONTAMINATION IN THE SENSING HEAD. RUST RESULTED FROM THE ACID-BA SE SOLDER USED FOR SEALING THE SENSING HEAD HOUSING.							
CORRECTIVE ACTION-THE VENDOR CHANGED FROM ACID-BASE SOLDER TO ROBIN-BASE SOLDER ON 19 OCTOBER 1962. GDC INITIATED A JUNEY 111-64 TO REMOVE FROM USE ALL ACCELEROMETER TRANSDUCERS (P/N 7-01413-5) MADE BEFORE OCTOBER 1962.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC RELAY ASSEMBLY ERS	LV-89-24-4329-F	FAR 87-11879-1	1460 840316	FACTORY	YES NO		892813
FAILURE MODE-ELECTRICAL SHORT CIRCUIT OF PINS C AND D. WIRE CONNECTORS OF PINS C AND D WERE FORCED TO ELECTRICAL CONTACT BY POTTING.							
CORRECTIVE ACTION-RAR LV-89-24-8286 REQUESTING IMPROVED POTTING TECHNIQUES TO PREVENT RECURRENCE.							
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC ELBOW BRACKET-TRANSDUCER ERS	SLV-AS-24-4393-F	FAR 89-11808-1	7110 840316	FACTORY	YES NO		891562
FAILURE MODE-CONTAMINATION UNIT FAILED DUE TO A CLOGGED AIR PASSAGE CAUSED BY AN EXCESS OF BRAZING MATERIAL NEAR AS TSP.							
CORRECTIVE ACTION-EXISTING STOCK RE-INSPECTED. INSPECTION PROCEDURES CHANGE TO REQUIRE INSPECTION AFTER WELDING.							
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FIA8486/P2-4CO-03-268	COMPOSITE-B FACT 840313	2630 840313	ETR-18	YES NO		897899
FAILURE MODE-ERRATIC OPERATION. SHORT DURATION DECREASES IN RF1 CHANNEL 14 INFORMATION FREQUENCY BAND OCCURRED DURING THE TEST.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PAT-TP-89F-2187-1	UTP-PAT 87-01898-21	840318	FACTORY	YES NO		890836
FAILURE MODE-ELECTRICAL SHORT. DURING INITIAL PROOF CYCLE, UNIT S/M 3180198 SHOWED GENERAL ERROR OF -0.88 PERCENT. FAILURE WAS CAUSED BY NO.2 LEAD FROM PICKUP INTERFERING WITH ARMATURE PADS.							
CORRECTIVE ACTION-ED/C AND VENDOR CONDUCTED FAILURE REVIEW. ADDITIONAL UNITS WERE EXAMINED BUT NO DISCREPANCIES FOR NO. VENDOR TIGHTENED AC INSPECTION OF LEAD INSTALLATION.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-REACTOR ERS	LV-99-24-4886-F A-99-24-4885-F	FAR 99-01018-1	640311	FACTORY	YES 6D/C NO	
FAILURE MODE-ELECTRICAL OPEN CIRCUIT FROM BROKEN COIL WIRE ATTRIBUTED TO POOR QUALITY ASSEMBLY WORKMANSHIP. TWO SIMILAR REACTOR FAILURES ARE REPORTED.						
CORRECTIVE ACTION-RAR A-99-24-8291 DOCUMENTS THE ACTION. COGNIZANT PERSONNEL WERE ALERTED OF THE MALPRACTICE AND WE ARE REQUESTED TO USE GREATER CARE IN THE ASSEMBLY OF THIS PART. DESIGN CHANGES WERE REQUESTED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC REACTOR ERS	A-99-24-4885-F A-99-24-4886-F	FAR 99-01018-1	640311	FACTORY	YES 6D/C NO	
FAILURE MODE-ELECTRICAL SHORT. ZERO RESISTANCE MEASURED AT THE REACTORS TERMINALS CAUSED BY MALPOSITIONED COIL.						
CORRECTIVE ACTION-RAR A-99-24-8291 DOCUMENTS REQUESTED DESIGN CHANGES WHICH CREATE IMPROVED COIL ASSEMBLY TECHNIQUE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	LV-99-24-4882-F A-99-24-4883-F	FAR 99-01018-1	640311	FACTORY	YES FIFTH DIMENSION NO N	R25C-123
FAILURE MODE-ELECTRICAL OPEN. EXCESSIVE NOISE SPIRING CAUSED BY THE DIFFERENTIAL AMPLIFIER INPUT OPEN CIRCUIT.						
CORRECTIVE ACTION-RAR 8LV-99-24-8226 RECOMMENDING MODIFICATION OF TELEPACKS TO INCLUDE JUMPER WIRE BETWEEN THE NEGATIVE PEDESTAL SEGMENTS OF THE COMMUTATOR RINGS USED FOR DIFFERENTIAL AMPLIFIER INPUT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	A-99-24-4879-F A-99-24-4880-F	FAR 99-01171-21	640310	FACTORY	YES FIFTH DIMENSION NO N	WAXD-281
FAILURE MODE-STRUCTURAL. UNIT WAS REJECTED FOR EXCESSIVE UNIT SPEED. FAILURE WAS CONFIRMED AS CAUSED BY RANDOM CHANGES IN INTERNAL FRICTION LOADS CAUSING CHANGES IN DRIVE MOTOR SPEED.						
CORRECTIVE ACTION-NONE. RECOMMENDED CORRECTIVE ACTIONS FOR REDESIGN AND PRODUCTION RUN-IN WERE DISAPPROVED.						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR POTENTIOMETER ERS	SLV-88-24-4844-F	PAR 88-11118-1	640310	FACTORY	YES	SPECTROL NO 80	8929331
FAILURE MODE-OUT OF TOLERANCE. POORLY SOLDERED POTENTIOMETER RESISTANCE ELEMENT LEAD WIRE JUNCTION.							
CORRECTIVE ACTION-BAR SLV-88-24-4844-F RECOMMENDING SURVEY REPLACEMENT OF THE SPECTROL MODEL 80 POTENTIOMETERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-49-24-4528-F	PAR 27-01243-9	130F 640310	FACTORY	YES	COLVIM NO 401-A-18-75	890656
FAILURE MODE-STRUCTURAL. THE UNIT FAILED WHEN THE TELEMETRY OUTPUT INDICATED ZERO PERCENT INFORMATION BANDWIDTH. WH EREAS TEN PERCENT IS EXPECTED. FAILURE OF THE TRANSDUCER WAS CAUSED BY INSUFFICIENT SOLDER ON THE CASE WELD TO MAINT AIN THE VACUUM SEAL. THE VENDOR BELIEVES THAT THE UNIT WAS DISTORTED OR MISHANDLED AFTER SHIPPING.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ANGULAR DISPLACEMENT TRANSDUCER ERS	58-2161	UTP-PAT 89-01003-1	640310	60/C	YES	SERVONICINST-1 NO MC. 5041-0101	890168
FAILURE MODE - OUT OF TOLERANCE. DIMENSION C MEASURED 3.08 INCHES. ALLOWABLE LIMITS ARE 2.97 TO 3.03 INCHES. S/N 31 10260.							
CORRECTIVE ACTION - NONE. NEW UNIT PLACED IN TEST PRIOR TO COMPLETION OF DIMENSIONAL INVESTIGATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CRYSTAL RECTIFIER CIRCUIT BOARD ERS	FR692176.1 DATED 1 MAY 1964	UTP-PRT 57-13837-3	640309	60/C	YES	60/C NO	893600
FAILURE MODE-STRUCTURAL. OUT OF TOLERANCE WHEN TEST SPECIMEN WAS AT 160 DEG F, 2-AXIS RANDOM-SINE 10 GRMS SWEEP IN PROGRESS. NO CALIBRATION OUTPUT WAS OBTAINED ON CHANNELS 8, 9, 10, AND 11 WITH 27.5 VDC APPLIED TO J1-N. THIS W AS CAUSED BY POOR INSTALLATION OF CONFORMAL COATING THAT ALLOWED A CAPACITOR TO BREAK LOOSE FROM THE CRYSTAL RECTIFI ER MODULE.							
CORRECTIVE ACTION-DEPARTMENT 143-3, 60/A INSPECTION, HAS ALERTED THE LINE INSPECTORS TO ENFORCE THE NPS FOR APPLIC ATION OF CONFORMAL COATING. REF. FR-894-2-169 SUPPLEMENT A.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC RADIO FREQUENCY AMPLIFIER ERS	A-99-24-4884-F PAR	87-21018-9	640309	FACTORY	YES	BENDIX NO 1077064-4A
FAILURE MODE-OUT OF TOLERANCE. THE AMPLIFIERS RF OUTPUT REPORTEDLY FLUCTUATED BETWEEN ZERO AND SEVEN WATTS WHERE A CONSTANT SEVEN WATTS IS REQUIRED.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONVERTER-CIRCUIT ERS	FR-69A2176.1 98-13538-5	UTP-PRT	640309	60/C	YES	60/C NO 55-13538-5
FAILURE MODE-OUT OF TOLERANCE. TEST SPECIMEN AT 100 DEG F, 2-AXIS RANDOM-SINE 10 GRMS SWEEP IN PROGRESS. NO CALIBRATION OUTPUT ON CHANNELS 5, 6, 7, 8, 9, AND 10 WITH 27.5 VDC APPLIED TO J 1-W. THIS WAS CAUSED BY NO CONFORMAL COATING APPLIED TO SUPPORT ONE CAPACITOR (R4) AND ONE RESISTOR (R6) THAT BROKE LOOSE ON FREQUENCY TO DC CONVERTER.						
CORRECTIVE ACTION-DEPARTMENT 143-3, 60/A INSPECTION, HAS ALERTED THE LINE INSPECTORS TO ENFORCE THE WPS FOR APPLICATION OF CONFORMAL COATING. REF. FR-654-E-169 SUPPLEMENT A.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR CAPACITOR ERS	FR-69A2176.1 27-12291-1	UTP-PRT	640309	60/C	YES	60/C NO
FAILURE MODE-STRUCTURAL. THE TEST SPECIMEN WAS AT 100 DEGREES F, 2-AXIS RANDOM-SINE 10 GRMS SWEEP WAS IN PROGRESS. NO CALIBRATION OUTPUT WAS OBSERVED ON CHANNELS 5, 6, 7, 8, 9 AND 10 WITH 27.5 VDC APPLIED TO J1-W. INVESTIGATION REVEALED BROKEN LEADS ON CAPACITORS C-1 AND C-3 CAUSED BY IMPROPER APPLICATION OF CONFORMAL COATING.						
CORRECTIVE ACTION-60/C INSPECTION HAS ALERTED THE LINE INSPECTORS TO ENFORCE THE WPS FOR APPLICATION OF CONFORMAL COATING. REF. FR-654-E-169 SUPP A.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR69C-1049	UTP-PRT	640309	60/C	YES	BOURNS NO 2004206304
FAILURE MODE-ERRATIC OPERATION. EXCESSIVE SPIKING DURING RANDOM/SINE VIBRATION IN X, Y AND Z AXIS /Y AND Z AXIS ON 3-12-64/. SPIKING WAS ALSO EXCESSIVE ON SUBSEQUENT SINE ONLY VIBRATION TEST. FAILURE WAS NOT CONFIRMED AT VENDOR'S PLANT AND COMPARISON WITH PRESHIPMENT RECORDS SHOWED NO DETERIORATION. NO PROBABLE EXPLANATION FOR THIS DISCREPANCY. CAUSE OF FAILURE MAY HAVE BEEN DUE TO TEST EQUIPMENT BUT THIS CANNOT BE REAFFIRMED.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	FR-69C-2087-1 FR-69C-2087-1	UTP-PRT 7-01683-6	640306	60/C	YES NO	YES ROSEMOUNT NO
FAILURE MODE-OPEN/ELECT./, ELEMENT B /PING D-E/ OPENED DURING PRI X-AXIS VIBRATION. THE BREAK OCCURRED IN THE PLATINUM WIRE AT THE CONNECTION POINT TO THE LEAD WIRE. FAILURE WAS DUE TO INADEQUATE SUPPORT OF THE UPPER ELEMENT.						
CORRECTIVE ACTION-VENDOR INCORPORATED A DESIGN CHANGE TO PROVIDE BETTER ELEMENT SUPPORT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POSITION TRANSDUCER ERS	692161 UTP-QUAL/PPT	69-01008-1	640306	FACTORY	YES NO	SERVONIC NO 5041-0101
FAILURE MODE-OUT OF TOLERANCE. AFTER 20,000 CYCLES OF THE LIFE TEST, THE OBSERVED ERROR WAS PLUS 1.25 AND MINUS 2.4 PERCENT. ALLOWED IS PLUS OR MINUS 2.08 PERCENT INCLUDING MEASURING INSTRUMENT ERROR.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	LV-99-24-4301-C LV-99-24-4301-C	FAR 7-01468-627	640305	FACTORY	YES NO	BENDIX NO 1050702-13-K
FAILURE MODE-OUT OF TOLERANCE. THE SUBCARRIER OSCILLATOR REPORTEDLY FAILED BY INDICATING A NARROW BANDWIDTH.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	LV-99-24-4334-F LV-99-24-4334-F	FAR 7-01393-105	640305	FACTORY	YES NO	BENDIX NO 1069093-3-6
FAILURE MODE-ELECTRICAL OPEN. INSUFFICIENT OSCILLATOR RANGE CAUSED BY OPEN WINDING IN THE OUTPUT VOLTAGE POTENTIOMETER. SEVEN SIMILAR POTENTIOMETER FAILURES ARE REPORTED.						
CORRECTIVE ACTION-BAR NZ-AS-24-6101 INITIATED THE IMPROVED VENDOR QUALITY CONTROL OF THE FAULTY POTENTIOMETER.						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4888-F OSCILLATOR	FAR 89-01174-115	840308	FACTORY	YES	BENDIX MO 1882141-8-8	890809
FAILURE MODE-ELECTRICAL SHORT. OUTPUT OF 0.001 VOLT AC WAS MEASURED WHEN 0.048 VOLT AC WAS EXPECTED. CAUSED FROM PO OR QUALITY SOLDERING INTERMITTENTLY SHORT CIRCUITING OSCILLATOR COMPONENTS.							
CORRECTIVE ACTION-RAR LV-99-24-8281 REQUESTING VENDOR IMPROVED TECHNIQUES AND INSPECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR89C-3011.1 ANGULAR POSITION TRANSDUCER	UTP-BUAL/PPT 87-01618-7	840308	FACTORY	YES	SERVONIC MO 9031-0107	890701
FAILURE MODE-OUT OF TOLERANCE. THE MEASURED ERROR BAND WAS PLUS 0.07 AND MINUS 1.04 PERCENT. ALLOWED IS PLUS OR MINUS 0.75 PERCENT AND THE INSTRUMENT ERROR IS 0.06 PERCENT. 8/M 3100008.							
CORRECTIVE ACTION-MORE. FAILURE WAS NOT CONFIRMED BY STANDARDS LAB.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-90-24-4843F ACCELEROMETER TRANSDUCER	FAR 7-01418-8	3500 840308		YES	BORG-WARNER MO 9747-8	890670
FAILURE MODE-CONTAMINATION. THIS IS AN ACCELEROMETER MEASURING MISSILE LONGITUDINAL ACCELERATION. DURING A TEST ON 3500 IT HAD NO OUTPUT. CONTAMINATION WAS FOUND ON THE VIBRATING WIRE HEAD. THE RESULT OF USING AN ACID CORE SOLDER F LUX.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR DISCONTINUED THE USE OF ACID CORE SOLDER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4500-F BUSSING ASSEMBLY	FAR 89-11201-8	840308	FACTORY	YES	80/C MO	890809
FAILURE MODE-ELECTRICAL OPEN CIRCUIT BETWEEN PINS 8 AND 9. THE ENDS OF TWO WIRES MAKING UP THE RESISTANCE ELEMENT OF THE SUB ASSEMBLY BECAME LOOSE FROM PROBABLE OVERHEATING DURING SOLDERING.							
CORRECTIVE ACTION-ALL COMIZANT ASSEMBLY AND INSPECTION PERSONNEL WERE ALERTED OF THE FAILURE AND CAUTIONED TO USE GREATER CARE.							

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INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER-SCREW ERS	FR69C-1080.2 FR69C-1080.2	UTP-PRT 69-01003-33	640308	6D/C	YES	BOURNS NO 2007372707	091361
FAILURE MODE-OUT OF TOLERANCE. DURING THE POST MINUS 100 DEGREES F TEMPERATURE PROOF CYCLE, THE ERROR BAND WAS OUT OF TOLERANCE. THE OUTPUT ERRORS WERE PLUS 1.09 PERCENT AND MINUS 2.32 PERCENT AT 2100 PSIA, AND PLUS 2.26 PERCENT AND MINUS 1.33 PERCENT AT 3150 PSIA. THE ALLOWED ERROR IS PLUS OR MINUS 1.0 PERCENT. ON THE SPECIAL CONTINUITY PLOT AT 9 DEGREES TEMPERATURE TEST ON 3 MARCH 1964, THE OUTPUT OF THE UNIT SHOWED 4.5 PERCENT HYSTERESIS. FAILURE ANALYSIS BY THE VENDOR INDICATED THAT THE OUT OF TOLERANCE CONDITION WAS CAUSED BY A LOOSE BEARING. THE BEARING SET SCREW HAD NOT BEEN TIGHTENED SUFFICIENTLY DURING MANUFACTURE.							
CORRECTIVE ACTION-THE VENDOR IS AWARE OF THE NECESSITY FOR MAINTAINING TIGHTER CONTROL. SEE VCAR 6264-64 AND CARR-F-4173 SC-1.							
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC POWER CHANGEOVER SWITCH ERS	FR69C8176.2 FR69C8176.2	UTP-PRT 59-01017-3	640230	6D/C	YES	KINETICS CORPO NO RATION M692	093244
FAILURE MODE-FAIL DURING OPERATION. BENCH TEST AT ROOM AMBIENT FOLLOWING PRT TEMPERATURE-VIBRATION AND RADIO INTERFERENCE TEST. CALIBRATOR HAD NO OUTPUT, CAUSED BY POWER CHANGEOVER SWITCH FREEZING IN EXTERNAL COMMAND POSITION PREVENTING CALIBRATION DURING PRT TESTING.							
CORRECTIVE ACTION-SPEC. CONTROL DRAWING WAS REVISED ON 9 OCTOBER 1964 BY CHANGE C TO CLARIFY THE CONTROL MOTOR DUTY CYCLE.							
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER CIRCUIT BOARD ERS	FR69A2176.1 FR69A2176.1	UTP-PRT 69-11118-1	640228	6D/C	YES	6D/C NO	093603
FAILURE MODE-OUT OF TOLERANCE WHEN TEST SPECIMEN WAS AT AMBIENT TEMPERATURE, X-AXIS RANDOM-SINE 10 GRMS IN PROGRESS. CHANNEL 6, MEASUREMENT 2209V, WAS FOUND TO BE NON LINEAR DURING PROOF CYCLE FOLLOWING X-AXIS RANDOM-SINE VIBRATION. THIS WAS CAUSED BY INSUFFICIENT CONFORMAL COATING TO PROPERLY HOLD C-1 AND R-35 SIGNAL CONDITIONER COMPONENTS.							
CORRECTIVE ACTION-A DRAWING CHANGE WAS MADE AS A RESULT OF REVIEW OF MP8 77.1086 TO CLARIFY EXTENT OF CONFORMAL COATING ABOUT 85%. REF. FR 694-2-218A.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER-WIRING ERS	LV-99-24-4551-F FAR 27-01018-3	640228	FACTORY	YES	MAYBERRY NO	092803
FAILURE MODE-OUT OF TOLERANCE. 70 PERCENT BANDWIDTH INFORMATION WAS RECEIVED WHEN MORE THAN 100 PERCENT IS EXPECTED . THE FAILURE WAS CONFIRMED BUT WAS NOT VALID AGAINST 27-12385-889 SIGNAL CONDITIONER. FAILURE DUE TO IMPROPER AMPLIFIER WIRING.						
CORRECTIVE ACTION-60/C IMPROVED QUALITY CONTROL OF VENDOR FINAL VISUAL INSPECTION TO ASSURE THAT INSTALLATION IS IN ACCORDANCE WITH APPLICABLE DRAWINGS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY CIRCUIT BOARD ERS	FR-882178-1 UTP-PT 27-01611-1	640228	60/C	YES	BENDIX NO	3130896-2 091960
FAILURE MODE-ELECTRICAL OPEN. TEST SPECIMEN AT 70 DEG F, Y-AXIS RANDOM-SINE 10 GRMS SWEEP TO BE STARTED AFTER EQUALIZATION. TRANSMITTER OUTPUT R.F. POWER DROPPED FROM 10 TO 2.5 WATTS AND MODULATION COULD NOT BE DETECTED ON THE R.F. CARRIER. THIS WAS CAUSED BY AN INTERMITTENT OPEN IN THE 28 VDC. INPUT LEAD TO 28 VDC FOUND BROKEN DUE TO SOLDER WICK KING AND A SHARP HARNESS BEND EXCEEDING DESIGN.						
CORRECTIVE ACTION-DEPT. 349-3 INFORMED VENDOR TO PREVENT VIOLATION OF MINIMUM BEND RADIUS AND PROPOSED REDESIGN OF THE CASE AT PACI TO GIVE NECESSARY CLEARANCE PREVENTING SHARP HARNESS BENDS. REFERENCE. FR-634-2-168 SUPPLEMENT A.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-99-24-4480-C FAR 7-01486-863	640227	FACTORY	YES	BENDIX NO	41963-2-X 093000
FAILURE MODE-ERRATIC OPERATION. SUBCARRIER OSCILLATOR FAILED DURING VIBRATION TESTING WHEN THE UNIT INDICATED SPIRALING AND FREQUENCY WAS UNSTABLE. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLY RELIABILITY CONTROL.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC THERMOCOUPLE WIRE ERS	LV-99-24-4556-F FAR 113143	351D	WTR	YES	NO	
FAILURE MODE-ELECTRICAL SHORT. CIRCUIT BETWEEN CONDUCTOR AND SHIELD CAUSED BY TEFLON DYE POCKETS PERMITTING INADEQUATE MECHANICAL INSULATION SUPPORT ON FIRE DETECTION MEASUREMENT P18717.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-RAR LV-80-24-0334 REQUESTING DISCONTINUANCE OF DYE COLORING AND REVISION OF MIL-W-8848-B TO INCLUDE CURRENT STATE OF THE ART IN THERMOCOUPLE WIRE MANUFACTURE.						002607
	INSTRUMENTATION-A/B A-89-24-4344-C TELEMETRY SET AND TRANSDUCER COMMUTATOR, MOTOR ERS						001977
	FAILURE MODE-OUT OF TOLERANCE. 4 D-C SEARMOTORS FAILED DUE TO SLOW SPEEDS ON INTERMITTENT OPERATION. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.						
	CORRECTIVE ACTION-NONE SINCE FAILURE ANALYSIS WAS WAIVED.						003560
	INSTRUMENTATION-A/B A-89-24-4319-P TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS						
	FAILURE MODE-FAIL DURING OPERATION. UNIT OUT PUT FLUCTUATED WHEN HYDRAULIC PRESSURE WAS APPLIED. FAILURE NOT CONFIRMED. IT IS SUSPECTED THAT SINUSOIDAL PRESSURE FLUCTUATION WITHIN THE SYSTEM CAUSED THE REPORTED FAILURE.						
	CORRECTIVE ACTION-INITIATE DESIGN EVALUATION TO DETERMINE TRANSDUCER STABILITY CHARACTERISTICS FOR THIS APPLICATION. TAKE PRECAUTION NOT TO REJECT TRANSDUCERS FLUCTUATING DUE TO PRESSURE VARIATIONS. THESE PARTS WILL BE PUT ON RELIABILITY WAIVER TUX.						
	INSTRUMENTATION-A/B LV-89-24-4493-C TELEMETRY SET AND TRANSDUCER ELECTRICAL FILTER ERS						002091
	FAILURE MODE-ERRATIC OPERATION. LIMITER FILTER FAILED DURING ELECTRICAL TESTS WHEN IT HAD AN INTERMITTENT OUTPUT ON CHANNELS 1, 2 AND 3. FAILURE ANALYSIS WAS CANCELED UPON WAIVER BY SLV RELIABILITY CONTROL.						
	CORRECTIVE ACTION-NONE.						
	INSTRUMENTATION-A/B LV-89-24-4491-P TELEMETRY SET AND TRANSDUCER COMMUTATOR-MOTOR ERS						
	FAILURE MODE-OUT OF TOLERANCE. AUXILIARY SIGNAL CONDITIONER FAILED WHEN CHANNELS 16, 17 AND 18 COMMUTATOR SPEEDS WERE IN EXCESS OF SPECIFIED SPEEDS. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A SHIFT IN THE TORQUE LOAD ON THE COMMUTATOR.						

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SYSTEM	TEST/REPORT NUMBER	DIF DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE DIF	TIME DIF	OTH	VENDOR PART NO
Q. NOISE, THE COMMUTATOR, COMMON TO ALL THREE CHANNELS, WAS REJECTED BY INSPECTION.						
CORRECTIVE ACTION-REQUESTED VENDOR TO SUBJECT COMMUTATORS TO A 90 HOUR BURN-IN PERIOD AND TEMPERATURE CYCLE THEN DU RING CHECKOUT TESTS. ALSO REQUESTED COMMUTATION SPEED TOLERANCES BE WIDENED.						
INSTRUMENTATION-A/B	SLV-99-24-4543-F	FAR	640226	FACTORY	YES	SPECTROL
TELEMETRY SET AND TRANSDUC	FREQUENCY DETECTOR-POTENTIOMETER	60-11119-1			NO	60
FAILURE MODE-ELECTRICAL OPEN. OUTPUT VOLTAGE COULD NOT BE ADJUSTED WITHIN TOLERANCE DUE TO OPEN CIRCUITED POTENTIAL ENTER R-6.						
CORRECTIVE ACTION-FAR SLV-99-24-8231 RECOMMENDING SURVEY AND REMOVAL OF SPECTROL MODEL-60 AND REPLACEMENT WITH HIGH ER CURRENT RATED POTENTIOMETER.						
INSTRUMENTATION-A/B	LV-99-24-4494-C	FAR	640225	FACTORY	YES	
TELEMETRY SET AND TRANSDUC	CONVERTER	27-12232-3			NO	
FAILURE MODE-ERRATIC OPERATION. TWO AC-DC CONVERTERS FAILED TO REMAIN STABLE WHILE VARYING RMS INPUT VOLTAGE FROM 9 -0 VOLTS TO 0-2 VOLTS. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLV RELIABILITY CONTROL.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B	LV-99-24-4503	FAR	640224	FACTORY	YES	BOURNS
TELEMETRY SET AND TRANSDUC	PRESSURE TRANSDUCER	7-01731-9			NO	71724-0-33-732
FAILURE MODE-OUT OF SPECIFICATION. UNIT WAS REPORTED TO HAVE A STATIC ERROR BAND 01.95 PCT WHEN A MAXIMUM OF PLUS 0 & MINUS 1.0 PERCENT IS REQUIRED.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B	LV-99-24-4540-F	FAR	640224	FACTORY	YES	
TELEMETRY SET AND TRANSDUC	POWER SUPPLY-TRANSDUCER	88-13003-1			NO	
FAILURE MODE-OUT OF TOLERANCE. LOWER LIMIT ADJUSTMENT TO 16 VOLTS COULD NOT BE ACHIEVED. TRANSISTOR Q: ELECTRODE MA						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTM	VENDOR NAME VENDOR PART NO
0 POOR WELD.						
CORRECTIVE ACTION-IMPLEMENTATION OF WELD INTEGRITY TECHNIQUES AND TEST SAMPLING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	BLV-99-24-4548-7	FAR 99-11119-1	640228	FACTORY	YES SPECTROL NO 80	992993
FAILURE MODE-ELECTRICAL OPEN. ELECTRICAL OPEN OF POTENTIOMETER R-8 DUE TO HIGH CURRENT RESISTIVE ELEMENT BURNING. ELEMENT WIRE IS INADEQUATE FOR SHALLEST CURRENT SURGE.						
CORRECTIVE ACTION-RAR BLV-99-24-3251 RECOMMENDING SURVEY REPLACEMENT OF THE SPECTROL MODEL 80 POTENTIOMETERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	FR8942176-1 DATED 1 MAY 1964	UTP-PRT 27-01838-3	640221	60/C	YES FIFTH DIMENSIO NO N MAXI-481	993801
FAILURE MODE-OUT OF TOLERANCE WHEN TEST SPECIMEN WAS AT AMBIENT ROOM TEMPERATURE. X-AXIS RANDOM-SINE IS 6RMS SHEEP IN PROGRESS. NO OUTPUT WAS OBTAINED FROM CHANNEL 11 OF COMMUTATOR. CAUSE DUE TO IMPROPER FASTENING OF THE SNAP RING TO DRIVE SPINDLE AND MOTOR DURING MANUFACTURING PROCESS.						
CORRECTIVE ACTION-VENDOR OF THE COMMUTATOR WAS CONTACTED ON 8 JUNE 1964 AND REQUESTED TO TAKE ACTION TO INSURE THAT ALL SNAP RINGS INSTALLED ON COMMUTATOR SPINDLES WERE PROPERLY SECURED. REF. FR-834-S-216, AND 834-S-64-224 (MEMO) DATED 5 JUNE 1964.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY INDUCTOR ERS	FR-8942176.1	UTP-PRT 28-13840-8	640221	60/C	YES 60/C PO	993326
FAILURE MODE-ELECTRICAL. OPEN OF POWER SUPPLY MODULE AT 70 DEGREES F X-AXIS RANDOM-SINE IS 6RMS SHEEP. FAILURE OCCURRED AT 8 CPS. THE POWER SUPPLY OUTPUT ON PIN J7-U DROPPED FROM 3.02 VDC TO 0.0 VDC, DUE TO A BROKEN LEAD ON THE L1 INDUCTOR. THIS WAS CAUSED BY INSUFFICIENT CONFORMAL COATING WHERE NO FILLETS WERE FORMED TO SUPPORT THE BODY OF THE INDUCTOR						
CORRECTIVE ACTION-DEPT. 861-4 REQUESTED A SURVEY TO REMOVE AND REMARK ALL 89-11100-1 AND 89-11300-1 UNITS INSTALLED ON MISSILES ON IN STOCK. REMARK TO BE IN ACCORDANCE WITH LATEST ECM INCORPORATED ON DRAWING THAT APPLIES TO CONFORMAL COATING. DEPT. 141-3 ALERTED INSPECTION TO INSPECT BETTER FOR PROPER APPLICATION OF CONFORMAL COATING (REF. 834-S-169 SUPP. A). RCA						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP TIME	PRI DIP	OTH DIP	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-WIRING ERS	SLV-99-24-4583-F A-99-24-4509-F	FAR 99-11110-1	640281	FACTORY	YES	NO		992932
FAILURE MODE-ELECTRICAL SHORT. COULD NOT ADJUST OUTPUT. CAUSED BY SHORT CIRCUITING OF LEAD 7 TO DETECTOR MOUNTING 9 TWO VIA METALLIC CIRCUIT BOARD HOLE IDENTIFICATION TAB.								
CORRECTIVE ACTION-BAR SLV-99-24-8297 REQUESTING REMOVAL OF THE HOLE IDENTIFICATION TAB AFTER CIRCUIT BOARD DRILLING								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-WIRING ERS	SLV-99-24-4547-F A-99-24-4509-F	FAR 99-11110-1	640281	FACTORY	YES	NO		992930
FAILURE MODE-ELECTRICAL SHORT. NO VOLTAGE OUTPUT CAUSED BY ELECTRICAL SHORT CIRCUITING OF TERMINAL PIN 7 TO THE DETECTOR MOUNTING STUD VIA METALLIC CIRCUIT BOARD HOLE IDENTIFICATION TAB.								
CORRECTIVE ACTION-AVO TO PRODUCTION DEPARTMENT REQUESTING REMOVAL OF THE HOLE IDENTIFICATION TAB AFTER CIRCUIT BOARD DRILLING.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PITCH AND YAW RATE DEMODULATOR ERS	A-99-24-4517-F A-99-24-4509-F	FAR ST-12367-3	640280	FACTORY	YES	NO		992901
FAILURE MODE-OUT OF TOLERANCE. INABILITY TO ADJUST THE OUTPUT TO ZERO VOLTS DC.								
CORRECTIVE ACTION-NONE. SINCE FAILURE WAS UNCONFIRMED AND NO ABNORMALITIES WERE OBSERVED.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-99-24-4509-F	FAR T-01731-9	138F 640280	FACTORY	YES	NO	71724-0-35-732	
FAILURE MODE-ERRATIC OPERATION. UNIT INDICATED A SPIKED OUTPUT WHILE 3000 PSI HYDRAULIC PRESSURE WAS APPLIED. REPORTED FAILURE WAS BELIEVED TO BE CAUSED BY 400 CYCLE OTHER FROM THE HYDRAULIC ACTUATOR VALVE. VIBRATION LEVELS AT THE AREA OF THIS MEASUREMENT ARE MORE DEMANDING THAN THE TRANSDUCER SPECIFICATION.								
CORRECTIVE ACTION-A DESIGN EVALUATION WAS REQUESTED FOR TRANSDUCER USED FOR THIS MEASUREMENT (IN33P) TO DETERMINE THE AIR SUITABILITY FOR THIS APPLICATION. IT HAS ALSO REQUESTED THAT ACTION BE TAKEN TO REDUCE THE REJECTION OF TRANSDUC								

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI OTH	VENDOR NAME VENDOR PART NO	
ERS FAILING FOR THE ABOVE CAUSE. THESE TRANSDUCERS WERE PLACED ON THE RELIABILITY WAIVER TMX.							091362
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR MODULE ERS	FR682178-1	UTP-PAT 27-12281-1	640219	60/C	YES	60/C	093602
FAILURE MODE-OUT OF TOLERANCE WHEN TEST SPECIMEN WAS AT AMBIENT ROOM TEMPERATURE DURING BENCH TESTS OF PAT AND PRT. REPEATITION RATE OF CALIBRATOR WAS 1.8 TO 3.8 CPS WHICH IS OUT OF TOLERANCE.							
CORRECTIVE ACTION-CORRECTIVE ACTION REQUEST NO. 9300 WAS PROCESSED TO INSPECTION SUPERVISION REQUESTING THAT ACTION BE TAKEN TO PREVENT PLACING CALIBRATORS IN STOCK THAT ARE NOT WITHIN THE SPECIFIED REQUIREMENTS. REF. FR 634-2-216-A.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR POTENTIOMETER ERS	SLV-99-24-4346-F	FAR 69-11118-1	640219	FACTORY	YES	SPECTROL NO M0060	092336
FAILURE MODE-ELECTRICAL OPEN. THE UNITS OUTPUT WAS ZERO CAUSED BY AN OPEN R-8 POTENTIOMETER. LEAKY HEADER SEAL PERMITTED POTTING COMPOUND TO ENTER THE POTENTIOMETER CAUSING AN OPEN CIRCUIT CONDITION.							
CORRECTIVE ACTION-R/R SLV-99-24-8291 RECOMMENDING SURVEY REPLACEMENT OF THE SPECTROL MODEL 80 POTENTIOMETERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-TRANSMITTER ERS	A-19-24-4604-F	FAR 27-12234-3	2430	FACTORY	YES	NO	094560
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR NOISE ON THE INFORMATION BANDWIDTH CAUSED BY A FAULTY TRANSMITTER.							
CORRECTIVE ACTION-VENDOR FOR TRANSMITTER REVISED HIS TEST PROCEDURES TO ELIMINATE PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	60/AA6043-001-6/PFC-CO-01-0013-016	COMPOSITE-FACTORY	2430		YES	NO	
ERS	27-12234-3		640217				
FAILURE MODE-ERRATIC OPERATION. CHANNEL 11 OF TELEMETER NO. 2 HAS 7 PCT NOISE.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEM LEVEL AND COMPOSITE RETESTING REQUIRED.							

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SYSTEM SUB-SYSTEM	TEST/EQUIPMENT FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-FAILURE ISOLATED TO TRANSMITTER SECTION OF TELEMETRY NO. 2. REPLACED TELEMETRY NO. 2.							898643
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR/POTENTIOMETER ERS	SLV-89-24-4487-F	FAR 89-11110-9	840817	FACTORY	YES NO		898645
FAILURE MODE-ERRATIC OPERATION. OUTPUT COULD NOT BE ADJUSTED TO REQUIRED 2.5 PLUS OR MINUS 0.025 VDC. FAILURE DUE TO OPEN WINDING ON POTENTIOMETER R-4 CAUSED BY EXCESSIVE CURRENT WHICH WAS PROBABLY CAUSED BY CONNECTING THE DEMODULATOR TO TEST SET WITH POWER ON.							
CORRECTIVE ACTION-TESTING PERSONNEL CAUTIONED TO FOLLOW E.D.P. EXACTLY TO AVOID REPETITION OF THIS FAILURE.							898642
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-89-24-4471-F	FAR 89-11110-1	840817	FACTORY	YES NO		
FAILURE MODE-OPEN (ELECT). CHANNEL 9 WAVED AT 70 SECONDS DURING PRODUCTION VIBRATION TESTING. FAILURE CAUSED BY DEMODULATION ASSEMBLY (89-11110) AUDIO/FREQUENCY DETECTOR POTENTIOMETER HANDLE BEING OPEN CIRCUITED.							
CORRECTIVE ACTION-POTENTIOMETER REPLACED BY NEW IMPROVED 100K POTENTIOMETER.							898684
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER WIRING ERS	SLV-89-24-4488-F	FAR 89-01173-1 E	840817	FACTORY	YES NO	MAYBERRY NO 166-1A	
FAILURE MODE-ELECTRICAL OPEN, DIFFERENTIAL AMPLIFIER FAILED WHEN IT HAD NO OUTPUT. FAILED WAS CONFIRMED AND ATTRIBUTED TO THE SIGNAL GROUND PIN IS NOT BEING SOLDERED IN THE CIRCUIT.							
CORRECTIVE ACTION-RECOMMENDED VENDOR REVISE THE CHECKOUT PROCEDURES WHERE NECESSARY TO PREVENT RE-OCURRENCE OF THIS TYPE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER ERS	SLV-89-24-4489-C	FAR 87-01241-1	2500	FACTORY	YES NO	MAYBERRY NO 114-6	
FAILURE MODE-OUT OF TOLERANCE. NOISE IN ACCESS OF 7 PERCENT IS OBSERVED ON CHANNEL 14. CS-UNITS).							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.						092436
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER-3 ERS	LV-99-24-4449-C	FAR 87-01241-1	SEE SELO FACTORY W 640213		YES MAYBERRY NO 114-8		092837
FAILURE MODE-ERRATIC OPERATION. NOISE IN ACCESS OF 7 PERCENT 18V ON CHANNEL 14. 3 AMPLIFIERS FAILED IN THIS MODE IN CONNECTION WITH VEHICLES 8800 AND 1940. FAILURE NOT CONFIRMED.							
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR ERS	A-99-24-4550-F	FAR 57-13936-1	640213	FACTORY	YES NO		092839
FAILURE MODE-OUT OF TOLERANCE. ELECTRICAL MISMATCH BETWEEN THE DEMODULATOR AND THE NEXT ASSEMBLY. WHEN TESTED INDEP EMENTLY THE UNIT WAS WITHIN TOLERANCE.							
CORRECTIVE ACTION-NONE. SINCE THE NEXT ASSEMBLY WAS NOT AVAILABLE FOR SYSTEM TESTING THE EXACT FAILURE CAUSE WAS NO T DETERMINED AND NO MEANINGFUL CORRECTIVE ACTION CAN BE TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PPT-TP-69F-1793.1	UTP-QUAL/PPT 27-01552-13	640213	FACTORY	YES WIANCKO NO P2-4106-13		090629
FAILURE MODE-OUT OF TOLERANCE. DURING CONTINUOUS WAVE CONDUCTED INTERFERENCE PORTION OF MIL-I-26800, HIGHEST INTERFERENCE LEVEL AT 240 KC EXCEEDED SPECIFICATION LIMITS ABOUT 21 DB ABOVE 1 MICRO-VOLT. FAILURE WAS CAUSED BY INADEQUATE DESIGN WHICH MADE NO PROVISION FOR FILTERING THE SECOND HARMONIC OF THE TRANSDUCER OSCILLATOR. (B/M 3110114).							
CORRECTIVE ACTION-60/C CONTACTED VENDOR AND REDESIGN WAS ACCOMPLISHED BY ADDING AN RFI FILTER TO ALL DASH NUMBERS OF 27-01552 TRANSDUCERS. 60/C ACTION IS IDENTIFIED IN ECP 7677 (87-01552-13 IS NOW A 27-01552-31-FILTER INCORPORATED).							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER ERS	LV-99-24-4458-6	FAR 87-01241-1	193D 640211	FACTORY	YES MAYBERRY NO 114-8		
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 14 NOISE WAS 80 PERCENT WHEN 7 PERCENT MAX IS ALLOWED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRE OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							091991
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR89C-2100.2	UTP-PAT 69-01004-23	640211	FACTORY	YES	BOURNS NO 2023203001	090733
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER OUTPUT WAS HIGH AT ALL PRESSURES. A TOTAL OF FOUR CYCLES WERE RUN AND THE MAXIMUM ERROR (ON THE LAST CYCLE) WAS 1.00 PERCENT. THE FAILURE WAS CAUSED BY IMPROPER COMPENSATION FOR EFFECTS OF TEMPERATURE VARIATION.							
CORRECTIVE ACTION-THE VENDOR HAS BEEN NOTIFIED OF THIS CONDITION AND IMPROVED PERFORMANCE BY THE VENDOR'S QUALITY CONTROL FUNCTION IS EXPECTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR ERS	LV-99-24-4485-C	FAR 7-12077-801	640210	FACTORY	YES NO		092993
FAILURE MODE-FAIL DURING OPERATION. DEMODULATOR ASSEMBLY FAILED DURING ELECTRICAL TESTING WHEN IT HAD NO OUTPUT. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLY RELIABILITY CONTROL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER DIODE ERS	WZ-AS-24-4318-F	FAR 87-12762-807	640210	FACTORY	YES NO		092602
FAILURE MODE-ELECTRICAL OPEN. LESS THAN ZERO ISM WHEN ZERO AND 100 PERCENT WAS EXPECTED. OPEN CIRCUITED DIFFERENTIAL AMPLIFIER DIODE WAS THE FAILURE CAUSE.							
CORRECTIVE ACTION-NONE. THE FAILED DIODE WAS INADVERTANTLY DAMAGED DURING FAILURE ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	69-3140	UTP-PET 7-01731-3	640210	607C	NO NO	BOURNS 71724-0-10-752	
FAILURE MODE - OUT OF TOLERANCE. THE UNIT WOULD NOT SHOW AN OUTPUT BEYOND 81 PERCENT FSV/R. S/N 309-1102. PET LOT 2 S. FAILURE WAS DUE TO MALFUNCTION OF THE MATHOMETER IN THE TEST EQUIPMENT.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION - TEST EQUIPMENT WAS REPAIRED. NO FURTHER ACTION DEEMED NECESSARY.							090100
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMBINATOR ERS	FR69A2170.1	UTP-PRT 27-01030-5	640208	60/C	YES FIFTH DIMENSIO NO M	MRKD-461	091740
FAILURE MODE-OUT OF TOLERANCE. TEST SPECIMEN SKIN TEMPERATURE WAS MAINTAINED AT 0 DEGREES F IN TEST CHAMBER. COMMUTATOR SPEED FOR CHANNEL 11 WAS BELOW MINIMUM OF 2.5-40 PERCENT RPS. SPEED WAS 2.03 RPS AND 2.17 RPS DUE TO COMMUTATOR MOTOR SPEED SLIPPING DOWN AT COLD TEMPERATURES.							
CORRECTIVE ACTION-TEST PROCEDURE AND RELIABILITY TEST OUTLINE OPERATING TEMPERATURE REQUIREMENTS FOR 69-11100 TELEP AS ASSEMBLY WERE CHANGED FROM 0 DEGREES F TO REFLECT POO-MOUNTED EQUIPMENT TEMPERATURES OF 40 TO 80 DEGREES F. SPECIFICATION CONTROL DRAWING WAS ALSO CHANGED. REF. FR-69A-B-216-A AND MEMO 69A-2-84-224 ON 5 JUNE 1964.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMBINATOR ERS	LV-99-24-4434-C	FAR 27-11244-1	640207	FACTORY	YES BENDIX NO 1047382		091509
FAILURE MODE-ERRATIC OPERATION. COMMUTATOR OPERATED INTERMITTENTLY.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PAT-TP-69F-2567-1	UTP-PAT 27-01992-21	640207	FACTORY	NO MIANCKO NO P2-4106-21		090635
FAILURE MODE-OUT OF TOLERANCE. DURING PROOF CYCLE PRIOR TO TEMPERATURE-VIBRATION TEST, UNIT 3/N 305033 SHOWED MAX OUT OF TOLERANCE OF PLUS 48.02 PERCENT DURING THIRD PRESSURE RUN WHERE PLUS OR MINUS 1.0 PERCENT IS ALLOWABLE. FAILURE WAS DUE TO ACCIDENTAL OVERPRESSURIZATION DURING PROOF CYCLE.							
CORRECTIVE ACTION-60/C MODIFIED TEST SETUP TO INCORPORATE HARD LINE SYSTEM INSTEAD OF FLEXIBLE LINES USED IN CALIBRATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-99-24-4445-P	FAR 09-11116-1	640208	FACTORY	YES SPECTROL NO 80		
FAILURE MODE-ELECTRICAL OPEN. OUTPUT OF THE DETECTOR COULD NOT BE ADJUSTED. POTENTIOMETER R-6 WAS OPEN CIRCUITED. FAILURE OF THE DETECTOR WAS DUE TO THE GROUND SIDE OF THE POTENTIOMETER BEING OPEN INTERNALLY. A BAD SOLDER CONNECTION.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
N WAS FOUND AT ONE END OF THE POTENTIOMETER.							894802
CORRECTIVE ACTION-RAR BLV-98-24-8881 REQUESTED THE USE OF SPECTROL MODEL 80 POTENTIOMETERS BE DISCONTINUED BY ASTRO NAUTICS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	LV-98-24-4450-C FAR 7-01488-881	250D 640206	FACTORY	YES BENDIX NO 1041982-4-2			893710
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	LV-98-24-4451-C FAR 7-01488-881	640206	FACTORY	YES BENDIX NO 1041982-4-2			892832
FAILURE MODE-DRIFT. OUTPUT FREQ DRIFTED 300 CPS.							
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	A-98-24-4473-C FAR 7-01780-8	138F 840E06	SAN DIEG O	YES BOURNS NO			892839
FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER FOR MEASUREMENT F14SP INDICATED AN OPEN CIRCUIT BETWEEN PINS C AND A AND A L90 BETWEEN PINS C AND B. FAILURE ANALYSIS WAS CANCELLED PER TWX 04-61-001.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS	LV-98-24-4583-C FAR	804D 640205	FACTORY	YES BENDIX NO 1086483-6			
FAILURE MODE-ERRATIC OPERATION. UNIT WAS REJECTED BECAUSE OF ERRATIC COMMUTATOR SPEED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE. NO FAILURE ANALYSIS PERFORMED.							094962
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4484-C	PAR	198D	FACTORY	YES		093706
	TELEMETRY SET AND TRANSDUC AMPLIFIER AND FILTER ASSEMBLY	27-12802-1	640204		NO		
	FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							094003
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4444C	PAR	640204	FACTORY	YES	BENDIX	
	TELEMETRY SET AND TRANSDUC OSCILLATOR	27-01268-11			NO	1030263-8-CA	
	FAILURE MODE-OUT OF TOLERANCE. OUTPUT FREQUENCY WAS MEASURED TO BE 3034 CPS. THE FREQUENCY SHOULD BE 3000 PLUS OR MINUS 15 CPS.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED.							092990
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4482-C	PAR	640204	FACTORY	YES	BENDIX	
	TELEMETRY SET AND TRANSDUC OSCILLATOR	27-01268-41			NO	1030294-E-5-A	
	FAILURE MODE-OUT OF TOLERANCE. SUBCARRIER OSCILLATOR FAILED DURING ELECTRICAL TESTING WHEN THE AMPLITUDE AND BAND EDGES COULD NOT BE ADJUSTED AND THE OUTPUT CONTROL HAD NO EFFECT ON VARIATION OF FREQUENCY OUTPUT. FAILURE ANALYSIS WAS CANCELED UPON WAIVER BY SLV RELIABILITY CONTROL.						
CORRECTIVE ACTION-NONE.							092989
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4481-C	PAR	640204	FACTORY	YES	BENDIX-PACIFIC	
	TELEMETRY SET AND TRANSDUC OSCILLATOR	27-01268-87			NO	1030263-10-T-A	
	FAILURE MODE-OUT OF TOLERANCE. SUBCARRIER OSCILLATOR FAILED DURING ELECTRICAL TESTING WHEN THE OUTPUT AND BAND EDGE WAS NOT ADJUST. FAILURE ANALYSIS WAS CANCELED UPON WAIVER BY SLV RELIABILITY CONTROL.						
CORRECTIVE ACTION-NONE.							
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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-98-24-4488-F A-98-24-4488-F	FAR 87-01807-129	640203	FACTORY	YES	SENDIX-PACIFIC MO 3131193-156
FAILURE MODE-ERRATIC OPERATION. SUBCARRIER OSCILLATOR FAILED WHEN ITS OUTPUT WAS REPORTED ERRATIC. FAILURE WAS NOT CONFIRMED.						
CORRECTIVE ACTION-REQUESTED A FUNCTIONAL TEST BE PERFORMED ON UNITS SUSPECTED OF FAILING AFTER REMOVAL FROM THEIR T OP ASSEMBLY AND BEFORE REJECTION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-98-24-4488-F A-98-24-4488-F	FAR 7-01723-11	640203	SAN DIEG	YES	BOURNS MO 42013-0-30-752
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. TRANSDUCER INDICATED A STATIC ERROR OF PLUS 1.76 PERCENT. THE SPECIFICATION IS PLUS OR MINUS 1.0 PERCENT. FAILURE WAS ATTRIBUTED TO OVERPRESSURIZATION RESULTING IN A POSITION ZERO 8HI FT.						
CORRECTIVE ACTION-REQUESTED APPROPRIATE PERSONNEL TAKE STEPS TO PREVENT RECURRENCE OF THIS FAILURE MODE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-99-24-4442-C LV-99-24-4442-C	FAR 7-01488-861	640203	FACTORY	YES	SENDIX MO 1041982-42
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. NO FREQUENCY OUTPUT WITH AN INPUT STIMULUS APPLIED.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED BY SLV RELIABILITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	SLV-A9-24-4493 SLV-A9-24-4493	FAR 69-01003-39	640200	SAN DIEG	YES	BOURNS MO
FAILURE MODE-ERRATION OPERATION. TWO TRANSDUCERS FOR MEASUREMENT H33P INDICATED SPIKING AND OUTPUT VARIATIONS. FAILURES WERE NOT CONFIRMED. POSSIBLE CAUSE OF THE REPORTED FAILURE COULD BE SUBJECTING THE TRANSDUCER TO SUSTAINED VIBRATION LEVELS WHICH WOULD CAUSE ITS PERFORMANCE TO DETERIORATE. ANOTHER POSSIBLE CAUSE COULD BE DUE TO THE WIPER CONTACT TRYING TO FOLLOW THE SINUSOIDAL PRESSURE FLUCTUATION. WHILE RAPIDLY SWEEPING BACK AND FORTH, THE WIPER MAY BE SKINNING UP ON THE OIL FILM AND PERIODICALLY LIFTING OFF THE POTENTIOMETER COIL. THIS CONDITION WOULD PRODUCE THE UNDESIRABLE SPIKING.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-FAILED NOT CONFIRMED. SLV INSTRUMENTATION DESIGN GROUP IS PROPOSING AN ELECTRICAL FILTER TO REM OVE H3P TRANSDUCER OUTPUT SPIRING. THE PFILTER NETWORK WILL BE INSTALLED IN THE TRANSDUCER HARNESS. FILTERING OUT T NE SPIRING SHOULD NOT DEGRADE PRESSURE DATA.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	LV-AD-14-210-F TRANSDUCER-PRESSURE-WIRING	FAR 88-01107-03	350-D 640131	FACTORY	YES COLVIN NO	401-6-4-75
FAILURE MODE-ELECTRICAL LEAK AT PLUG. CAUSED BY A CRACKED SOLDER JOINT BETWEEN THE STAINLESS STEEL PRESSURE PORT AN D THE BRASS CASE. CRACK DUE TO IMPROPER SOLDER JOINT PREPARATION BY THE VENDOR.						
CORRECTIVE ACTION-VENDOR REQUESTED TO REVIEW SOLDER PREPARATION TECHNIQUES TO PRECLUDE FAILURES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	LV-99-24-4507-C POWER SUPPLY	FAR 27-01228-1	640131	FACTORY	YES BENDIX NO	1046173-2-A
FAILURE MODE-FAILED DURING OPERATION. TIME. THE POWER SUPPLY HAD NO 100-VOLT DC OUTPUT.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS CANCELLED BY SLV RELIABILITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	LV-99-24-4508-C POWER SUPPLY	FAR 27-12991-1	640131	FACTORY	YES BENDIX NO	1046173-2A
FAILURE MODE-OUT OF TOLERANCE. A MONITOR VOLTAGE OF 1.269 VDC WAS RECEIVED (EXPECTED WAS -1.140V DC).						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	A-98-24-4420-F PRE FLIGHT CALIBRATOR-RELAY	FAR 27-13084-1	640130	FACTORY	YES NO	
FAILURE MODE-CONTAMINATION. OUTPUT WAS ZERO. THE FAILURE WAS CAUSED BY A SHORT BETWEEN PIN 7 OF RELAY K-1 AND CASE GROUND. THE SHORT WAS CAUSED BY A SOLDER GLOBULE.						
CORRECTIVE ACTION-PRODUCTION AND INSPECTION PERSONNEL CAUTIONED TO EXERCISE GREATER CARE TO PRECLUDE RECURRENCE.						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LY-99-24-4493-F TRANSDUC OSCILLATOR	FAR 27-01893-11	640130	FACTORY	YES	86MOIX NO 1063017-11	892999
FAILURE MODE-ERRATIC OPERATION. SUBCARRIER OSCILLATOR MODULE ASSEMBLY FAILED DURING VIBRATION TESTING WHEN 25 TO 50 PERCENT OF BANDWIDTH SPIKING WAS INDICATED ON THE OSCILLATOR OUTPUT.							
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER, WIRING ERS	A-99-24-4493 DIFFERENTIAL AMPLIFIER, WIRING	FAR 99-01820-3	640130	FACTORY	YES	MAYBERRY NO 128-1A	892929
FAILURE MODE-OPEN (ELECT). SECTION A OUTPUT WAS 9 MV WHEN 0.8 MV IS EXPECTED. FAILURE CAUSED BY AN OPEN 28 VOLT POWER LEAD TO SECTION A.							
CORRECTIVE ACTION-ASSEMBLY TECHNIQUES IMPROVED TO INSURE ADEQUATE LEAD SUPPORT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC HARNESS ASSEMBLY ERS	LY-99-24-4504-F HARNESS ASSEMBLY	FAR 27-11413-327	2830 640130	WTR	YES	60/C NO	892616
FAILURE MODE-ELECTRICAL OPEN CIRCUIT IN CONNECTOR 92-40137-002 AT PIN 8 TO THE B-1 YAW ACTUATOR.							
CORRECTIVE ACTION-ALERT COGNIZANT FACTORY PERSONNEL OF THE FAILURE AND INSTRUCTION OF THE CORRECT ASSEMBLY METHOD.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	FT4970/PL-8CO-U2-08 OSCILLATOR	COMPOSITE-J FACT	5E 640189	11	YES NO		897329
FAILURE MODE-DRIFT. RF 3 CHANNEL 6 OSCILLATOR DRIFTED 18 PCT TOWARD THE LOW FREQUENCY SIDE OF THE BAND.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE DIP	PR1 OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	A-88-84-4408-F TRANSMITTER-POWER SUPPLY	FAR 87-01611-1	640129	FACTORY	YES	DEMOMIX-PACIFIC NO 3130896-2
<p>FAILURE MODE-SHORT (ELECT). THE TRANSMITTER POWER SUPPLY FAILED WHEN IT DID NOT INDICATE A 225 VOLT DC OUTPUT WITH 27.5 VOLTS DC APPLIED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE 225 VOLT OUTPUT BEING SHORTED. THIS CAUSED THE DIODES WITHIN THE UNIT TO BE DESTROYED. CAUSE OF THE INTERNAL SHORT IS NOT KNOWN.</p> <p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	LV-88-84-4434C DIFFERENTIAL AMPLIFIER	FAR 87-01641-1	640129	FACTORY	YES	MAYBERRY NO 114-9
<p>FAILURE MODE-FAILED DURING OPERATION. AMPLIFIER HAD NO OUTPUT. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.</p> <p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	FR69C-2161.1 POSITION TRANSDUCER	UTP-EUAL/PPT 69-01005-1	640129	FACTORY	YES	SERVONIC NO 5041-0101
<p>FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER WAS NOT LINEAR AND HAD LOW ELEMENT RESISTANCE AFTER THE FIRST 10,000 CYCLES OF THE LIFE TEST. NO CAUSE WAS DETERMINED AND OTHER UNITS DID NOT REPEAT THE CONDITION.</p> <p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	FR69C-2169.8 TEMPERATURE TRANSDUCER	UTP-PRT 7-01664-23	640129	FACTORY	YES	ROSEMOUNT NO 130FO
<p>FAILURE MODE-OUT OF SPECIFICATION. DURING BASIC PROOF CYCLE, TIME RESPONSE WAS 2.0 SECONDS TO INDICATE 65.2 PERCENT OF A TEMPERATURE STEP CHANGE WHERE 0.5 SECOND MAXIMUM IS ALLOWED. THE FAILURE WAS CAUSED BY EXCESSIVE GLASS COATING COVERING THE RESISTANCE ELEMENT (FAILURE RECONFIRMED BY RETEST ON 640220).</p> <p>CORRECTIVE ACTION-60/C INFORMED THE VENDOR OF TEST RESULTS. THE VENDOR REVISED INSPECTION TECHNIQUES TO INSURE CORRECT THICKNESS OF GLASS COATING ON RESISTANCE ELEMENT AND INSTITUTED A SAMPLING TIME CONSTANT TEST PROGRAM.</p>						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	LV-88-84-4478-F TELEMETRY TRANSMITTER	FAR 88-01149-3	640186	FACTORY		TEXAS INSTRUMENTS M78 438878-7
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. TELEMETRY TRANSMITTER FAILED WHEN IT HAD NO OUTPUT. FAILURE WAS NOT CONFIRMED.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	SLV-88-24-4497-F TELEMETRY DETECTOR-WIRING	FAR 88-11118-1	640186	FACTORY	YES NO	
FAILURE MODE-SHORT (SELECT). THE FREQUENCY DETECTOR FAILED WHEN IT HAD NO OUTPUT DURING TESTING. SUBSEQUENT TESTING REVEALED THAT THE FAILURE WAS CAUSED BY A SHORT CIRCUIT BETWEEN THE MOUNTING STUD AND THE OUTPUT LEAD ON CIRCUIT BOARD 88-11118-7. THE SHORT WAS CAUSED BY THE OUTPUT LEAD TOUCHING A SECTION OF THE ETCHED CIRCUIT BOARD (A HOLE-NUMBER IDENTIFICATION), WHILE THE OTHER END OF THE HOLE-NUMBER WAS CRIMPED UNDER THE MOUNTING STUD.						
CORRECTIVE ACTION-THE ASSEMBLY PERSONNEL WERE INSTRUCTED TO REMOVE THE HOLE-NUMBER IDENTIFICATIONS FROM THE CIRCUIT BOARD AFTER THE UNIT IS ASSEMBLED AND BEFORE POTTING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	PROSC-2041.2 PRESSURE TRANSDUCER	UTP-8LT 68-01003-83	640186	FACTORY	YES NO	BOURNS 2007371705
FAILURE MODE-OUT OF TOLERANCE. DURING PORTIONS OF THE TEMPERATURE-SINE/RANDOM VIBRATION TEST, THE TRANSDUCER OUTPUT SHOWED NOISE IN EXCESS OF SPECIFICATION.						
CORRECTIVE ACTION-NONE. STRESS LIMIT TESTING IS IN EXCESS OF DESIGN REQUIREMENTS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	A-88-24-4423-C COMMUNICATOR	FAR 87-12313-028	10F 640187	FACTORY	YES NO	BENDIX
FAILURE MODE-OUT OF TOLERANCE. COMMUNICATOR SPEED WAS 4.31 CPS WHEN 8 CPS IS EXPECTED.						
CORRECTIVE ACTION-NONE. ANALYSIS WAIVED.						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	A-99-24-4487-C FAILED COMMUTATOR	FAR 87-12808-888	640187	FACTORY	YES	BENDIX NO	990831
FAILURE MODE-OUT OF TOLERANCE. SPEED WAS 2.18 RPS DURING VIBRATION, WHEREAS 2.5 RPS PLUS OR MINUS 5 PERCENT IS REQUIRED. FAILURE ANALYSIS OF THE COMMUTATOR WAS MAILED BY SLY RELIABILITY CONTROL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PAT-TP-89F-8187-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PAT 87-01898-81	640187	FACTORY	NO	MIANCO NO P2-4108-21	990834
FAILURE MODE-OUT OF TOLERANCE. DURING ACCELERATION TEST WITH INPUT OF 20 PSID (REF. PRESSURE 750 PSIG) UNIT 9/N 303 0033. OUTPUT WAS OUT OF TOLERANCE FROM MINUS 0.38 TO PLUS 2.74 PERCENT FS. MAX ERROR PLUS 3.32 PERCENT FS WHERE ALLOWABLE ERROR IS PLUS OR MINUS 1.8 PERCENT. FAILURE WAS CAUSED BY TEST SET-UP DIFFICULTY IN MAINTAINING 750 PSIG REF. PRESSURE.							
CORRECTIVE ACTION-60/C CONDUCTED FAILURE REVIEW AND REVISED TEST PROCEDURE TP-89F-8187-1 BY DELETING THE 750 PSIG REFERENCE PRESSURE REQUIREMENT DURING ACCELERATION TESTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	LV-99-24-4472-F TRANSDUCER, INSTRUMENTATION	FAR 89-01003-31	640189	SAH DIEG	YES	BURNS NO 2007371703	990838
FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER FOR MEASUREMENT P80P INDICATED 100 PERCENT INFORMATION BANDWIDTH WHEN 4 PERCENT WAS EXPECTED. RESISTANCE CHECKS REVEALED AN OPEN CIRCUIT BETWEEN PINS A AND C. MICROSCOPIC EXAMINATION OF THE RESISTANCE ELEMENT SHOWED THE ELEMENT HAD BURNED OPEN. THE TYPICAL HIGH CURRENT GLOBULAR FORMATION WAS FOUND ON THE ENDS OF THE OPEN WIRES. APPARENTLY AN ERRONEOUS VOLTAGE WAS APPLIED TO THE TRANSDUCER.							
CORRECTIVE ACTION-REQUESTED CHECKOUT TROUBLESHOOTING PROCEDURES AND TECHNIQUES BE REVIEWED TO PRECLUDE THE POSSIBILITY OF APPLYING EXCESSIVE VOLTAGES TO THE TRANSDUCER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-LV-99-24-4489 PRESSURE TRANSDUCER	FAR 7-01781-7	640184	FACTORY	YES	BURNS NO 71784-0-18-758	
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER FAILED WHEN THERE WAS NO OUTPUT VOLTAGE AT PROOF PRESSURE. POSITIONS OF THE DOUBLE WIPER AND MANDREL PERMITTED DISMANTLEMENT BEFORE PROOF PRESSURE WAS REACHED. THE WIPER AND MANDREL WERE INCORRECTLY ASSEMBLED.							

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	CORRECTIVE ACTION-VENDOR REVISED INSPECTION PROCEDURE TO SHOW FULL VOLTAGE OUTPUT AT PROOF PRESSURE AND REPAIRED THE X-Y PLOTTER. USED TO CHECK OUT THESE TRANSDUCERS, WHICH WAS IMPROPERLY WIRED.						999097
	INSTRUMENTATION-A/B LV-98-24-4408-C TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR						993352
		FAR 7-01488-881	940184	FACTORY	YES BENDIX NO 1041882-4-2		
	FAILURE MODE-OUT OF SPECIFICATION. WITH INPUT OF -0.16 VOLTS OUTPUT FREQUENCY WAS 31.845 CPS WHEN 31.845 PLUS OR MINUS 45 CPS IS EXPECTED.						
	CORRECTIVE ACTION-NONE. FAILURE ANALYSIS CANCELLED.						
	INSTRUMENTATION-A/B LV-98-24-4487-F TELEMETRY SET AND TRANSDUC POWER SUPPLY-WIRING						998737
		FAR 27-12991-1	1990	ETR	YES BENDIX-PACIFIC NO 1048173-2-A		
	FAILURE MODE-OUT OF TOLERANCE. POWER SUPPLY FAILED WHILE INSTALLED IN A TELEMETRY PACKAGE. UNIT HAD NO OUTPUT BELOW 34 DEGREES FAHRENHEIT. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE LEADS TO THE RESISTOR R-102 BEING REVERSED.						
	CORRECTIVE ACTION-RECOMMENDED VENDOR REVIEW INSPECTION PROCEDURES.						
	INSTRUMENTATION-A/B A-99-24-4448 TELEMETRY SET AND TRANSDUC TRANSDUCER, BRACKET						998318
		FAR 7-01723-13	940183	FACTORY	YES BOURNS NO 42013-0-100-78		
	FAILURE MODE-ERRATIC OPERATION. TRANSDUCER WAS ERRATIC DURING A ROUTINE PERIODIC CALIBRATION. FAILURE WAS ATTRIBUTED TO EXTREMELY LOW WIPER ARM TENSION WHICH WAS CAUSED BY INCOMPLETE ASSEMBLY OF THE MANREL SUPPORTING BRACKET. THE MANREL SUPPORTING BRACKET WAS FOUND ONLY PARTIALLY ASSEMBLED. THE FREE END OF THE BRACKET SHOULD HAVE BEEN SHUGGED DOWN, DRAWING THE MANREL INTO THE WIPER ARM, INCREASING WIPER ARM TENSION TO WORKABLE VALUES. INSTEAD, THE TENSION WAS VERY LOW AT THE LOW-PRESSURE END OF THE MANREL, GRADUALLY INCREASING AS THE HIGH PRESSURE END IS REACHED. THERE BY ACCOUNTING FOR ERRATIC OPERATION PREDOMINANTLY AT THE LOW END. STAKING LACQUER ON THE SCREW HEADS PROVES THE PROBLEM EXISTED BEFORE FINAL CHECKOUT BY THE VENDOR.						
	CORRECTIVE ACTION-VENDOR HAS TAKEN STEPS TO PRECLUDE FAILURES DUE TO LOW WIPER ARM TENSION BY CHECKING FOR A PLUS OR MINUS ONE-HALF GRAIN TENSION.						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	PET-TP-2-0280.1 PRESSURE TRANSDUCER	UPP-PET 7-01781-1	840122	FACTORY	NO	BOURNS NO 71784-0-0-788	000760
FAILURE MODE-OUT OF TOLERANCE. STATIC ERROR BAND WAS OUT OF TOLERANCE 0.23 AND 0.78 PERCENT FS/V/R OVER THE SPECIFIED LIMIT. THE FAILURE WAS NOT CONFIRMED. FAILURE WAS FOUND DUE TO HUMAN ERROR AND/OR TEST EQUIPMENT ACCURACY.							
CORRECTIVE ACTION-NONE. NO FAILURE. TEST LAB PERSONNEL WERE ADVISED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGE/OVER SWITCH ERS	LV-99-24-4417-C POWER CHANGE/OVER SWITCH	FAR 7-01782-3	840122	FACTORY	YES	KINETICS NO M172-4	000337
FAILURE MODE-FAIL DURING OPERATION. FAILED TO OPERATE AT 40 DEGREES F.							
CORRECTIVE ACTION-NONE. ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-99-24-4498 DETECTOR-POTENTIOMETER	FAR 89-11118-1	840122	FACTORY	YES	SPECTROL NO 80	000500
FAILURE MODE-OUT OF SPECIFICATION. FREQUENCY DETECTOR FAILED WHEN THE OUTPUT COULD NOT BE ADJUSTED TO THE SPECIFICATION REQUIREMENT OF 5.000 PLUS OR MINUS 0.005 VOLTS DC. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE POTENTIOMETER R-8 BEING BURNED OUT.							
CORRECTIVE ACTION-RECOMMENDED A SURVEY BE INITIATED TO REMOVE AND REPLACE SPECTROL MODEL-80 POTENTIOMETERS WITH HIGH CURRENT CAPACITY POTENTIOMETERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	A-99-24-4463-F SUBCARRIER OSCILLATOR	FAR 99-01174-137	10F 840122	FACTORY	YES	BENDIX NO 1062141-AG	001003
FAILURE MODE-ERRATIC OPERATION. NOISE AND SPIKING UP TO 50 PERCENT ISM.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							

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GENERAL DYNAMICS
CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	LV-98-24-4338-F LV-98-24-4338-F	FAR 7-01783-9	2850 640182	FACTORY	YES BOURNS NO	71784-0-35-752
<p>FAILURE MODE-OPEN, ELECTRICAL. UNIT INDICATED AN OPEN WHEN NOT PRESSURIZED AND HYDRAULIC PRESSURE WAS APPLIED TO THE MISSILE. FAILURE NOT CONFIRMED, HOWEVER IT IS BELIEVED THE VIBRATION LEVELS AT THE AREA OF INSTALLATION MAY EXCEED DESIGN SPECS. THE MOUNTING BRACKET WAS NOT INSTALLED PER BLUE PRINT.</p> <p>CORRECTIVE ACTION-IT WAS REQUESTED THAT THE BRACKET BE INSTALLED PER BLUE PRINT. ENGINEERING IS PREPARING A TEST TO GO TO MONITOR AND DETERMINE VIBRATION LEVELS AT POINT OF INSTALLATION.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CHANGEOVER SWITCH ERS	LV-98-24-4338-F LV-98-24-4338-F	FAR 7-01783-3	640181	FACTORY	YES KINETICS NO	M-178-4
<p>FAILURE MODE-CONTAMINATION. THREE POWER CHANGEOVER SWITCHES FAILED BECAUSE OF THEIR FAILURE TO TRANSFER ELECTRICAL POWER BECAUSE OF INTERMITTENT ELECTRICAL TRANSFER. FAILURES WERE CONFIRMED AND WERE DUE TO A HEAVY APPLICATION OF SILICON GREASE ON THE PINS AND SOCKETS, CAUSING INTERMITTENT OPERATION OF THE SWITCHES AT AMBIENT TEMPERATURE AND A GREATER DEGREE OF DISCONTINUITY AT LOWER TEMPERATURES.</p> <p>CORRECTIVE ACTION-RECOMMENDED THE APPROPRIATE DESIGN GROUP INVESTIGATE THE SPECIFICATION FOR THIS SWITCH WITH REFERENCE TO OPERATIONAL TEMPERATURE REQUIREMENTS AND SHORTENED LIFE CYCLE TEST TO ALLOW ELIMINATION OF THE LUBRICANT ON CONTACTS. ALSO RECOMMENDED ALL SWITCHES BE SUBJECTED TO ZERO OPERATIONAL TEMPERATURE, USING ONLY THOSE PASSING AS REPLACEMENT PARTS. RECOMMENDED VENDOR CHANGE MANUFACTURING PROCESSES TO ELIMINATE EXCESS LUBRICATION AND LUBRICANTS PRIOR TO AGE HARDENING.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION STRAP ERS	LV-98-24-4459-F LV-98-24-4459-F	FAR 7-01783-11	2850 640181	WTR	YES CEC NO	4-380-NA-50
<p>FAILURE MODE-ERRATIC OPERATION. TRANSDUCER FOR MEASUREMENT FIP EXHIBITED ERRATIC BEHAVIOR DURING AN END-TO-END CHECK. ANALYSIS REVEALED STATIC ERROR OF -2.31 PERCENT WHEN PLUS OR MINUS 1.0 PERCENT IS ALLOWED. HOWEVER, THE REPORTED FAILURE COULD NOT BE CONFIRMED. THE NEGATIVE STATIC ERROR WAS ATTRIBUTED TO THE STRAP CONNECTING THE WIPER MECHANISM TO THE BELLOWS BEING EXCESSIVELY BENT. THE WIPER COUNTERWEIGHT WAS FOUND LOOSE AND COULD HAVE BENT THE STRAP BY LOADING AGAINST THE CASE DURING PRESSURIZATION. INVESTIGATION ALSO SHOWED WEAR STREAKS ON THE RESISTANCE MANDREL, SOLD SOLDER CONNECTIONS BETWEEN ELECTRICAL PLUS WIRES WERE OF POOR QUALITY WITH BROKEN STRANDS. ONE TERMINAL APPARENTLY BROKE OFF AND THE WIRE WAS SOLDERED TO THE SHORT STUD. AT AMBIENT CONDITIONS THE WIPER WAS RIDING ON THE END SUPPORT OF THE MANDREL.</p> <p>CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED. CONVAIR HAS NOT PURCHASED ANY TRANSDUCERS FROM THIS VENDOR SINCE MAY 1960 AND NONE ARE PRESENTLY IN STOCK.</p>						

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CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCED ERS	PAT-TP-60F-2187-1	UTP-PAT 87-01888-81	840180	FACTORY	NO	WIANCKO NO PS-4106-81
<p>FAILURE MODE-OUT OF TOLERANCE. UNIT S/N 3080033 WAS OUT OF TOLERANCE AT 12 POINTS DURING CALIBRATION PORTION OF SAT ISFACTORY PERFORMANCE TEST. FAILURE WAS MOST PROBABLY CAUSED BY HUMAN ERROR SINCE FINAL CALIBRATION RUN SHOWED ALL POINTS WELL WITHIN THE ALLOWABLE PLUS AND MINUS 1 PERCENT TOLERANCE.</p>						
<p>CORRECTIVE ACTION-60/C CONDUCTED FAILURE REVIEW AND ALLOWED TESTING TO CONTINUE ON SAME UNIT.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY-RF 1 PACKAGE ERS	FTAB355/P2-4CO-04-199	COMPOSITE-B FACT	199D	12	YES	
<p>FAILURE MODE-ERRATIC OPERATION. RF 1 PACKAGE FAILED TO TRANSMIT SEVERAL TIMES WHEN IT WAS TURNED ON. INVESTIGATION REVEALED THAT ONE OF THE POWER SUPPLIES WOULD NOT OPERATE AT LOW TEMPERATURES.</p>						
<p>SYSTEM EFFECT-OPERATION DOES NOT START. RF 1 PACKAGE DID NOT COME ON UPON COMMAND FROM RF PANEL. SWITCH WAS CYCLED SEVERAL TIMES AND PROPER OPERATION WAS OBTAINED.</p>						
<p>VEHICLE EFFECT-NONE.</p>						
<p>CORRECTIVE ACTION-RF PACKAGE S/N 112-0015 WAS SENT TO LAB FOR REPLACEMENT OF POWER SUPPLY.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER TRANSDUCER ERS	LV-9D-24-4440-F	FAR 87-12390-813	285D	WTR	YES	
<p>FAILURE MODE-ELECTRICAL OPEN. NO OUTPUT ON MEASUREMENT P828D. FAILURE WAS CAUSED BY TRANSISTOR Q-1 BASE TO COLLECTOR JUNCTION OPENING AT LOW TEMPERATURE.</p>						
<p>CORRECTIVE ACTION-RAR LV-9D-24-8248 WAS WRITTEN TO THE SYSTEM DESIGN GROUP, RECOMMENDING INVESTIGATION OF POSSIBLE REPLACEMENT TRANSISTORS FOR THIS APPLICATION.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	LV-A9-24-4486-F	FAR 87-18393-883	381D	FACTORY	NO	
<p>FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR RATE WAS 10.58 RPS WHEN 10.8 RPS MAXIMUM IS ALLOWED. FAILURE CAUSED BY A SHIFT IN ELECTROMECHANICAL CHARACTERISTICS OF THE COMMUTATOR.</p>						

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DIFFICULTIES REPORT INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE.							892883
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER SEAL ERS	FR89C2177.1 PROSECUTED SEAL	UTP-PRT 7-01849-9	640117	GD/C	YES NO	ROSEMOUNT NO 134AC	892811
FAILURE MODE-LEAK-EXTERNAL. THE TRANSDUCER LEAKED EXCESSIVELY WHEN 1500 PSIA WAS APPLIED. THE LEAKAGE WAS PAST THE TRANSDUCER SEAL.							
CORRECTIVE ACTION-NONE. THE LEAKAGE PAST THE SEAL DOES NOT FALL WITHIN THE SCOPE OF THE SPECIFICATION CONTROL DRAWING AND WHEN CONSIDERED AS AN INSTALLATION IS ACCEPTABLE TO DESIGN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER CALIBRATOR ERS	LV-99-24-4443 FAR 7-12222-5	640117	FACTORY	YES NO			891498
FAILURE MODE-ERRATIC OPERATION. THREE POSITIVE PULSES WERE BEING GENERATED TO ONE NEGATIVE PULSE. NORMAL OPERATION COMPRISES ALTERNATE POSITIVE AND NEGATIVE PULSES. FAILURE ANALYSIS OF THIS IN FLIGHT CALIBRATOR WAS WAIVED BY SLV RELIABILITY CONTROL.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TEMPERATURE TRANSDUCER-O-RING ERS	FR-89C-2037.1 UTP-PRT 7-01833-9	640117	GD/C	NO NO	ROSEMOUNT		891154
FAILURE MODE-LEAK-EXTERNAL. THE SPECIMEN LEAKED AT 1000 PSIA. THIS WAS CAUSED BY A BROKEN O-RING. AFTER THE O-RING WAS REPLACED, IT BEGAN LEAKING AT 2500 PSIA.							
CORRECTIVE ACTION-MO FAILURE. LEAKAGE BETWEEN THE O-RING AND THE TEST FIXTURE IS NOT TO BE CONSIDERED A FAILURE OF THE TRANSDUCER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TEMPERATURE TRANSDUCER SEALS ERS	FR89C-2178.1 UTP-PRT 7-01849-11	640117	FACTORY	YES NO	ROSEMOUNT		
FAILURE MODE-LEAK-EXTERNAL. DURING INITIAL EXAMINATION OF UNIT, EXCESSIVE LEAKAGE OCCURRED AT 8000 PSIA WHERE 2.5 C/MIN IS ALLOWABLE AT 3000 PSIA. THE FAILURE WAS DUE TO THE STAINLESS STEEL O-RING BEING INCAPABLE OF SEALING MINOR SURFACE DISCONTINUITIES.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-THE ALLOWABLE LEAKAGE RATE WAS RAISED TO 10 CC/MIN AND THE LEAKAGE CHECK ADDED THROUGH THE HEAD O MLT. ON EACH TEST SPECIMEN FOLLOWING COMPLETION OF TESTS.						090747
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	FR9C-2193-2	UTP-PRT 7-01084-23	640117	FACTORY	YES	ROSEMOUNT NO 150FD	090742
FAILURE MODE-LEAK-EXTERNAL. DURING EXAMINATION OF THE PRODUCT, THE UNIT LEAKED EXCESSIVELY AT 6000 PSIA. THE FAILURE E WAS PROBABLY CAUSED BY SEAL SURFACE DISCONTINUITIES IN THE SPECIMEN.							
CORRECTIVE ACTION-THE ALLOWABLE LEAKAGE RATE WAS RAISED FROM 2.5 CC/MIN TO 10 CC/MIN AND THE LEAKAGE CHECK ADDED TH ROUGH THE HEAD ONLY. ON EACH TEST SPECIMEN FOLLOWING COMPLETION OF TESTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PPT-TP-69F-1795-1	UTP-QUAL/PPT 27-01332-13	640117	FACTORY	NO	MIANCKO NO P2-4106-13	090429
FAILURE MODE-OUT OF TOLERANCE. DURING MIL-I-20600 RFI TEST IN 250 KC TO 1.65 MC RANGE, OUTPUT WAS OUT OF SPECIFICAT ION. FAILURE DETERMINED TO BE CAUSED BY TEST EQUIPMENT NOT BEING AS SPECIFIED IN MIL-I-20600. (S/N 3110114).							
CORRECTIVE ACTION-NONE REQUIRED FOR TRANSDUCER. TEST EQUIPMENT REVISED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC LIMITER FILTER ERS	A-99-24-4486-F	FAR 27-12406-3	640116	FACTORY	YES	NO	090923
FAILURE MODE-OUT OF TOLERANCE. AC OUTPUT WAS 0.005 VOLTS WHEN 0.047 PLUS OR MINUS 0.003 IS EXPECTED.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	SLV-99-24-4443-F	FAR 69-11119-1	640116	FACTORY	YES	SPECTROL NO M0060	
FAILURE MODE-OUT OF TOLERANCE. POORLY SOLDERED POTENTIOMETER RESISTANCE ELEMENT LEAD WIRE JUNCTION.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PR1 OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-RAR LV-99-24-0281 RECOMMENDING SURVEY REPLACEMENT OF THE SPECTROL MODEL 60 POTENTIOMETERS.							092937
INSTRUMENTATION-A/B CT-99-24-1024-P TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS							092118
FAILURE MODE-FAIL DURING OPERATION. TRANSDUCER POWER SUPPLY EMITTED SMOKE FROM WITHIN THE HOUSING. RESISTOR R-21, A 124 OHM 1 PERCENT 1/8 WATT RESISTOR, WAS FOUND BURNED, DARKLY DISCOLORED, AND HAD DROPPED IN VALUE FROM 124 OHMS TO 120 OHMS. TESTS OF THE RESISTOR IN AND OUT OF THE CIRCUIT INDICATE THE MALFUNCTION WAS NOT PRODUCED INTERNALLY TO THE POWER SUPPLY. FAILURE WAS ATTRIBUTED TO A 28 VOLT DC EXTERNAL APPLICATION TO CONNECTOR PIN 8, ALTHOUGH THE CONDITIONS FOR MISAPPLICATION WERE NOT DETERMINED.							
CORRECTIVE ACTION-RECOMMENDED REVIEW OF ALL POSSIBILITIES OF ERRONEOUS SWITCH POSITIONING OR POWER CONNECTIONS. ALSO REVIEW OF ALL TESTS, TEST EQUIPMENT, AND TEST PROCEDURES APPLICABLE TO THIS POWER SUPPLY TO DETERMINE POSSIBLE MISAPPLICATION OF 28 VOLT DC TO CONNECTOR PIN 8.							
INSTRUMENTATION-A/B LV-99-24-4394-C TELEMETRY SET AND TRANSDUC IN-FLIGHT CALIBRATOR ERS							092066
FAILURE MODE-ERRATIC OPERATION. DID NOT PROVIDE ALTERNATE POSITIVE AND NEGATIVE PULSES AS REQUIRED.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B A-99-24-4409-F TELEMETRY SET AND TRANSDUC RELAY ASSEMBLY-COMM CONT ERS							093353
FAILURE MODE-FAIL DURING OPERATION. DURING VIBRATION OF NEXT ASSEMBLY PACKAGE, RELAY INDICATED CHATTER ON CONTACTS 10 AND 12. FAILURE DUE TO HIGH CONTACT RESISTANCE RESULTING FROM WEAR OR POSSIBLE CONTAMINATION.							
CORRECTIVE ACTION-NONE. RELAY CONTACTS 10 AND 12 WERE DAMAGED DURING ANALYSIS AND EXACT CAUSE OF HIGH CONTACT RESISTANCE WAS NOT DETERMINED.							
INSTRUMENTATION-A/B LV-99-24-4415-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS							
FAILURE MODE-STRUCTURAL. FAILURE WAS CAUSED BY A LEAKING SOUNDON TUBE. FAILURE RESULTED FROM IMPROPER BRAZING OF THE							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
E SOURCE TUBE.							891837
CORRECTIVE ACTION-VENDOR REVIEWED AND MODIFIED CLEANING, BRAZING, AND PRESSURE TESTING TECHNIQUES FOR UNITS MANUFACTURED AFTER JANUARY 1963.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGE- OVER SWITCH	LV-99-24-4432-F	FAR 7-01722-3	640114	FACTORY	YES KINETICS NO M172A		891506
FAILURE MODE-OPEN (ELECT). THE POWER CHANGE- OVER SWITCH SHOWED AN OPEN CIRCUIT BETWEEN P4 AND P5 WHEN SWITCHED TO INTERNAL POSITION.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	FAR-LV-99-24-4464	FAR 27-01366-29	298-D 640113	FACTORY	NO SERVO M172-2 NO		899061
FAILURE MODE-STRUCTURAL. THE TRANSDUCER (MEASUREMENT M801P) FAILED TO HAVE AN OUTPUT WHEN PRESSURE WAS APPLIED. CAUSE OF FAILURE WAS OVERPRESSURIZATION, PERMANENTLY DISTORTING THE SENSING ELEMENT.							
CORRECTIVE ACTION-REQUEST INITIATED TO TRACE THE ACTIVITIES OF THE TRANSDUCER IN ORDER TO LOCATE WHERE OVERPRESSURIZATION OCCURRED AND TAKE APPROPRIATE ACTION TO PREVENT RECURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POSITION TRANSDUCER	FR69C-2165.1	UTP-GUAL/PPT 89-01003-1	640111	FACTORY	NO SERVO M172-2 NO		890737
FAILURE MODE-ELECTRICAL OPEN. THE TRANSDUCER HAD NO OUTPUT BECAUSE OF BURNED WIRES ON THE ELEMENT. THIS WAS DUE TO A TESTING ERROR.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGE- OVER SWITCH	LV-99-24-4462-F	FAR 7-01722-3	640110	AMR	YES KINETICS NO M172-2		
FAILURE MODE-CONTAMINATION. INTERMITTENT POWER OUTPUT OBSERVED. FAILURE CAUSED BY HEAVY APPLICATION OF GREASE ON P1							

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GENERAL L. MICKS
CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VEHICLE NAME VEHICLE PART NO
NO AND SOCKETS.						
CORRECTIVE ACTION-NO CORRECTIVE ACTION DEEMED NECESSARY.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER, WIRING ERS	8LV-99-24-4412-F	FAR 85-01120-3	840110	FACTORY	YES MAYBERRY YES 128-1A	893355
FAILURE MODE-OPEN (ELECTRICAL). CHANNEL 11, SEGMENT 21 ZERO. CALIBRATE PULSE INDICATED 8 PERCENT 18W SPIKE. FAILURE CAUSED BY AMPLIFIER INPUT BEING OPEN CIRCUITED WITH NEGATIVE VOLTAGE APPLIED TO OUTPUT.						
CORRECTIVE ACTION-ENGINEERING DRAWINGS CHANGED TO CALL OUT A JUMPER BETWEEN NEGATIVE PEDESTAL OF THE COMMUTATOR RIM CS USED FOR DIFFERENTIAL AMPLIFIER INPUT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-99-24-4368-C	FAR 27-01269-9	840110	FACTORY	YES BENOX NO 105209-7-6A	893216
FAILURE MODE-OUT OF TOLERANCE. THE SUBCARRIER OSCILLATOR FAILED WHEN THE FREQUENCY COULD NOT BE ADJUSTED TO 2.158 P LUS 4 CPS AS REQUIRED BY EOP 300.935-13.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER-SWITCH ERS	LV-90-24-4457-F	FAR 27-12590-813	285D 840110	FACTORY	YES NO	893068
FAILURE MODE-STRUCTURAL. ERRATIC OPERATION OF THE DC POWER TRANSFER SWITCH. CAUSE DUE TO UNLOADED OF SPRING CONTACT NOT BEING POSITIONED TO ALLOW FOR WEAR OF SLIDING CONTACT SURFACES WHICH CAUSED AN OPEN MOTOR SUPPLY CIRCUIT WITH INTERRUPTION OF SWITCHING CAPABILITIES.						
CORRECTIVE ACTION-SOCKET REPLACED WITH NEW 4 PRONG BERYLLIUM SOCKET.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-99-24-4388-C	FAR 7-01488-683	250D 840109	FACTORY	YES BENOX NO TO 41963-2-X	893068
FAILURE MODE-DRIFT. FREQ FOUND TO BE DRIFTING.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED. FAILURE NOT CONFIRMED.						893570
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM RF CANISTER-TRANSMITTER ERS	LV-99-24-4387-C PAR 27-11841-938	PAR 27-11841-938	2500 640109	FACTORY	YES NO	BEMOIX	893583
	FAILURE MODE-OUT OF SPECIFICATION. CHANNEL 18 AND 19 OPERATED OUT OF SPECIFIED FREQUENCY RANGE. FAILURE NOT CONFIRMED.						
	CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR ERS	CT-99-24-3014-C PAR 27-01636-5	PAR 27-01636-5	640109	FACTORY	YES NO	REED AND REESE	898114
	FAILURE MODE-ERRATIC OPERATION. COMMUTATOR MOTOR OPERATED INTERMITTENTLY. FAILURE ANALYSIS WAS WAIVED BY CENTAUR RE LIABILITY.						
	CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	LV-99-24-4391-F PAR 27-01636-5	PAR 27-01636-5	640109	FACTORY	YES NO	FIFTH DIMENSION	891058
	FAILURE MODE-CONTAMINATION. TELEPAK FAILED WHEN THE CHANNEL 11 COMMUTATOR INDICATED 1.00 RPS WHEN THE MINIMUM ALLOWABLE SPEED IS 2.25 RPS. FAILURE WAS CONFIRMED. CAUSE OF FAILURE WAS ATTRIBUTED TO THE GEARTRAIN BEING CONTAMINATED WITH METAL PARTICLES WHICH BLOWED THE COMMUTATOR.						
	CORRECTIVE ACTION-REQUESTED VENDOR REVISE NECESSARY MANUFACTURING AND QUALITY CONTROL PROCEDURES TO PREVENT CONTAMINATION OF THE GEARBOX.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR-69C-2038.1 PAR 27-01636-5	PAR 27-01636-5	640109	FACTORY	YES NO	BOURNS	
	FAILURE MODE-CONTAMINATION. THE TRANSDUCER OUTPUT WAS DISCONTINUOUS. THE CAUSE OF THE DISCONTINUITY WAS FOUND TO BE CONTAMINATION ON THE VIPER PATH. S/N 3080801.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE VENDOR CHANGED TESTING PROCEDURE TO DETECT DISCONTINUITIES OF THIS TYPE AND ALSO CHANGED CLEANING PROCEDURE.							660772
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-99-24-4398-C	FAR 7-01488-827	2500 640108	FACTORY	YES NO	BENDIX NO 1087918-10	663562
	FAILURE MODE-DRIFT. CHANNEL 13 FREQ FOUND UNSTABLE AND DRIFTING. FAILURE NOT CONFIRMED.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM RF CAMISTER-TRANSMITTER ERS	LV-99-24-4398-C	FAR 87-11841-935	2500 640108	FACTORY	YES NO	BENDIX	663564
	FAILURE MODE-OUT OF SPECIFICATION. CHANNEL 13 OUT OF FREQ BAND. FAILURE NOT CONFIRMED.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CRYSTAL RECTIFIER-TRANSFORMER ERS	LV-99-24-4418-F	FAR 87-01379-1	640108	FACTORY	YES NO	APPLIED COMPON ENTS ACI-2176	663558
	FAILURE MODE-SHORT (ELECT). PINS 3 AND 4 OF SECONDARY WINDING INDICATED A SHORT.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PAT-TP-69F-2167-1	UTP-PAT 27-01898-21	640108	FACTORY	YES NO	WIANCKO NO P2-4108-21	
	FAILURE MODE-OUT OF SPECIFICATION. DURING EXAMINATION OF PRODUCT, THE HIGH PRESSURE PORT FITTING WAS FOUND DIMENSIONALLY OUT OF TOLERANCE AT 0.828 INCHES WHERE 0.876 TO 0.898 INCHES IS REQUIRED. DISCREPANCY RESULTED FROM VENDOR DRAWING CHANGE CYCLE AND 60/C SPECIFICATION CHANGE CYCLE. (8/N 3050033).						

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GENERAL DYNAMICS
CONVAIR DIVISION

13 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-60/C AND VENDOR REVIEWED DRAWINGS. 60/C SPECIFICATION WAS REVISED TO AGREE WITH LATEST VENDOR DATA SHEET.							090632
INSTRUMENTATION-A/B AGU3-001-2FC-CO-01-0008-008 COMPOSITE-FACTORY 2500 FACTORY YES TELEMETRY SET AND TRANSDUC OSCILLATOR-SUBCARRIER 640107 NO ERS 27-11841-935							097903
FAILURE MODE-OUT OF SPECIFICATION. CHANNEL IS OPERATED 1 TO 2 PCT FBW BEYOND THE LOW FREQUENCY BAND EDGE. SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND A PARTIAL COMPOSITE RETEST WERE REQUIRED. CORRECTIVE ACTION-THE TELEMETRY WAS REPLACED.							096023
INSTRUMENTATION-A/B LV-99-24-4382-C FAR 640107 FACTORY YES TELEMETRY SET AND TRANSDUC TRANSDUCER POWER SUPPLY 27-11824-801 NO ERS							096023
FAILURE MODE-OUT OF SPECIFICATION. THE TRANSDUCER POWER SUPPLY DRIFTED OUT OF SPECIFICATION ON THE HIGH SIDE. CAUSE UNKNOWN. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							093709
INSTRUMENTATION-A/B SLV-99-24-4448-F FAR 2450 FACTORY NO SPECTROL TELEMETRY SET AND TRANSDUC REGULATOR ASSEMBLY POTENTIOMETER 69-11117-1 640107 NO NO060 ERS							093709
FAILURE MODE-FAIL DURING OPERATION. BIAS OUTPUT COULD NOT BE ADJUSTED TO 2.5 VOLTS DC. IN THE MINIMUM POSITION, OUTPUT WAS 0.985 VOLT DC. IN THE MAXIMUM POSITION, OUTPUT WAS 5.975 VOLTS DC. WHILE ATTEMPTING TO ADJUST OUTPUT, VOLTAGE WOULD JUMP FROM MINIMUM TO MAXIMUM. THE FAILURE WAS DUE TO THE SPECTROL MODEL 60 BEING BURNED. THIS WAS CAUSED WHEN THE MODULE WAS PLUGGED INTO THE TEST SET WITH POWER ON.							
CORRECTIVE ACTION-AN AVO WAS DELIVERED TO TESTING DEPARTMENT SUPERVISION, REQUESTING TESTING PERSONNEL BE DIRECTED TO FOLLOW THE EOP EXACTLY, TO AVOID REPETITION OF THIS MODE OF FAILURE.							
INSTRUMENTATION-A/B LV-99-24-4480-C FAR 1350 FACTORY YES STATHAM TELEMETRY SET AND TRANSDUC ACCELEROMETER AMPLIFIER 27-01238-1 640106 NO CAS-18 ERS							
FAILURE MODE-ERRATIC OPERATION. OUTPUT WAS ERRATIC.							

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VEHICLE NAME VEHICLE PART NO
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS CANCELLED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	SLV-89-24-4340-F	FAR UNKNOWN	640105	FACTORY	YES	BENDIX-PACIFIC NO
FAILURE MODE-ERRATIC OPERATION. DURING PRECOMPOSITE TESTING THE TELEPAK CARRIER FREQUENCY WAS OBSERVED TO SHIFT. MA LFUNCTIONING OCCURRED AFTER POWER WAS SWITCHED FROM EXTERNAL TO INTERNAL. FAILURE WAS CONFIRMED AND WAS ATTRIBUTED T O THE TRANSMITTER BEING OUT OF ADJUSTMENT. THIS CONDITION OCCURRED SOMETIME AFTER THE UNIT WAS ADJUSTED BY BENDIX-PA CIFIC AND MAY HAVE BEEN CAUSED BY EITHER A DRIFT CONDITION EXISTING IN THE TRANSMITTER DESIGN OR THE LOCKSCREWS ON T HE BOTTOM OF THE TRANSMITTER BEING TURNED AT ASTRONAUTICS OR BENDIX-PACIFIC.						
CORRECTIVE ACTION-VENDOR WILL TORQUE PAINT LOCKSCREWS AFTER TRANSMITTER ADJUSTMENT TO PREVENT INADVERTENT CHANGE IN TRANSMITTER TUNING. REQUESTED VENDOR TO TIGHTEN TOLERANCE ON THE DIFFERENCE BETWEEN MODULATED AND UNMODULATED CARRI ER FREQUENCY. REQUESTED ASTRONAUTICS TELEMETRY DESIGN TO ADD A FREQUENCY TEST TO APPLICABLE EOPS, RECORDING MODULATE D AND UNMODULATED CARRIER FREQUENCY. SO ANY FUTURE FAILURES INVOLVING DRIFT CAN BE IDENTIFIED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ELECTRICAL FILTER ERS	SLV-89-24-4430	FAR 89-01015-1	640104	FACTORY	YES	NO
FAILURE MODE-STRUCTURAL. THE CHOKE COIL, L-1 WAS FOUND TO HAVE AN ELECTRICAL OPEN IN ITS CIRCUIT. THE OPEN WAS DUE TO A BROKEN LEAD AT THE JUSE OF PIN-2 THE LEAD WAS PROBABLY SHEARED OFF DURING MANUFACTURING. IMPROPER POSITIONING O F THE WIRE BEFORE SOLDER WAS APPLIED COULD HAVE LED TO THIS CONDITION.						
CORRECTIVE ACTION-RAR SLV-89-24-8242 WAS ISSUED REQUESTING RESPONSIBLE PERSONNEL TO IMPROVE ASSEMBLY AND INSPECTION PROCEDURES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-89-24-4375-C	FAR 87-01888-5	640102	FACTORY	BENDIX	1050263-8-6A
FAILURE MODE-ERRATIC OPERATION. SUBCARRIER OSCILLATOR FAILED WHEN ITS OUTPUT WAS ERRATIC DURING VIBRATION TESTING. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLV RELIABILITY CONTROL.						
CORRECTIVE ACTION-NONE.						

GENERAL DYNAMICS
CONVAIR DIVISION

10 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM CWS-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-89-24-4387-C A-89-24-4387-C	FAR 87-08169-61	640102	FACTORY	YES NO	YES 1032094-12-7A NO
FAILURE MODE-OUT OF TOLERANCE. THE SUBCARRIER OSCILLATOR FAILED WHEN THE FREQUENCY COULD NOT BE ADJUSTED TO THE LOW FREQUENCY SPECIFICATION OF 9884 PLUS 80 CPS REQUIRED BY EOP 530-585.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR69C-2041-2 FR69C-2041-2	UTP-PRY 69-01003-35	640102	FACTORY	YES NO	YES BOURNS NO 2007371705
FAILURE MODE-LEAK-EXTERNAL. MAXIMUM TOLERANCE DURING TEMPERATURE-VIBRATION TEST OF 3.5 PERCENT WAS EXCEEDED. AN ERR OR OF 4.39 PERCENT WAS MEASURED. LOW OUTPUT DURING PRE AND POST VIBRATION PROOF CYCLES (1-6-64 AND 1-7-64 RESPECTIVE LY) CONFIRMED A DATA SHIFT. THE SHIFT WAS DUE TO A LOSS OF REFERENCE PRESSURE CAUSED BY A LOOSE SEAL. THE SEAL CONSISTED OF A COPPER BALL AND A HOLDING SCREW.						
CORRECTIVE ACTION-THE VENDOR REPLACED THE ALLEN-TYPE HOLDING SCREW WITH A SPLINE TYPE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	A-89-24-4477-F A-89-24-4477-F	FAR 7-01720-5	138F 640101	SAN DIEG O	YES NO	YES BOURNS NO 73311-0-35-732
FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER FOR MEASUREMENT H30P WAS FOUND TO HAVE AN OPEN CONDITION FROM PINS B TO C AND PINS A TO C. PIN A TO B WAS CONTINUOUS. PIN A IS THE WIPER ARM, AND PINS B AND C ARE EACH END OF THE RESISTOR. THE WIPER ARM APPEARED TO BE STUCK, HOWEVER, THE DISCONTINUITY WAS AT PIN C AND THE RESULT OF A BROKEN WIRE ON THE RESISTANCE MANDREL. THE CAUSE OF THE BROKEN WIRE COULD NOT BE DETERMINED. THERE IS A POSSIBILITY THAT THE RESIDUAL STRESSES IN THE RESISTANCE MANDREL WERE NOT COMPLETELY RELIEVED WHICH IN TURN COULD HAVE CAUSED THE BROKEN WIRE.						
CORRECTIVE ACTION-MODIFIED VENDOR OF THE POSSIBILITY RESIDUAL STRESSES WERE NOT COMPLETELY RELIEVED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	LV-89-24-4421-F LV-89-24-4421-F	FAR 87-01611-1	631231	FACTORY	YES NO	YES BENDIX PACIFIC NO 3130896-2/TTP-119
FAILURE MODE-SHORT (ELECT). CIRCUIT BREAKER OPENED INDICATING A SHORT IN 80 VDC POWER SUPPLY.						

GENERAL DYNAMICS
CONVAIR DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							003300
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC VIDEO AMPLIFIER ERS	LY-99-24-4389-C	FAR 27-01878-1	031231	FACTORY	YES	BENDIX NO	003014
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 11 AND 12 INDICATED NOISE UP TO 8 PERCENT IDW WHEN 5 PERCENT IN MAXIMUM ALLOWED.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							001497
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR POTENTIOMETER ERS	LY-99-24-4441-F	FAR 69-11110-1	031231	FACTORY	YES	NO	
FAILURE MODE-STRUCTURAL. OUTPUT VOLTAGE COULD NOT BE ADJUSTED TO THE SPEC. VOLTAGE. FAILURE WAS CAUSED BY POTTING COMPOUND PRESSURE FORCING A SEPARATION OF ONE LEAD OF POTENTIOMETER R-6 FROM ITS CORRESPONDING TERMINAL.							
CORRECTIVE ACTION-EARLY-99-112-8240 WAS WRITTEN, RECOMMENDING QUALITY CONTROL BE INCREASED IN THE ASSEMBLY OF THESE DETECTORS.							001643
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	LY-99-24-4432-F	FAR 35-01174-119	031230	FACTORY	YES	BENDIX NO 1082141-6-6	
FAILURE MODE-OUT OF TOLERANCE. THE OSCILLATOR FREQUENCY INCREASED TO 3089 CPS. THE SPEC. REQUIREMENTS ARE 3000 PLUS OR MINUS 30 CPS. THE EXACT CAUSE OF FAILURE WAS NOT ISOLATED AS THE FAILURE DISAPPEARED DURING DEPOTTING OF THE UNIT.							
CORRECTIVE ACTION-SINCE THE EXACT CAUSE OF FAILURE WAS NOT ISOLATED, NO SPECIFIC CORRECTIVE ACTION WAS RECOMMENDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC VOLTAGE CONTROLLED OSCILLATOR ERS	FR-27-3080	UTP-PET 27-01868-8	031230	60/C	YES	BENDIX PACIFIC NO 1080263-5-6-A	
FAILURE MODE-FAIL DURING OPERATION. DURING INITIAL ACCEPTANCE TEST PORTION OF PET LOT NO. 4, OPEN CIRCUIT OUTPUT VOLTAGE READ 8.6V RMS WHERE REQUIREMENT IS 4.0 V RMS MINIMUM. CAUSE UNKNOWN, BUT BENDIX WAS REQUESTED TO CHECK TEST SET UP.							

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CONVAIR DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-OSCILLATOR REJECTED TO BENDIX AND ANOTHER SPECIMEN OBTAINED FOR PET LOT 4 TEST. REF. PPR P-9039-M T.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-POTENTIOMETER ERS	SLV-99-24-4389-F OSCILLATOR-POTENTIOMETER	FAR 87-01807-115	631227	FACTORY	YES	BENDIX NO 3131153-86
FAILURE MODE-OPEN (ELECT). OSCILLATOR FAILED WHEN ITS NOISE LEVEL INDICATED IS TO 20 PERCENT WITH A 2.5 VOLT DC IMP UT. THE MAXIMUM ALLOWED IS 5 PERCENT. FAILURE WAS CONFIRMED AND DUE TO THE SENSITIVITY POTENTIOMETER HAVING ONE SIDE OF THE WIPER WIRE LOOSE FROM ITS SOLDER CONNECTION.						
CORRECTIVE ACTION-RECOMMENDED THAT THE VENDOR TAKE CORRECTIVE ACTION TO PREVENT RECURRENCE OF THIS FAILURE MODE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR-CIRCUIT BOARD ERS	SLV-99-24-4431F DEMODULATOR-CIRCUIT BOARD	FAR 89-11110-5	631227	FACTORY	YES	60/C NO
FAILURE MODE-ERRATIC OPERATION. POTENTIOMETER A1-R1 COULD NOT BE ADJUSTED TO GIVE A VOLTAGE OUTPUT OF 2.500 PLUS OR MINUS 0.023 VOLTS DC. THIS WAS CAUSED BY LAND 575 PLATED HOLE BEING OPEN CIRCUITED AND THE ELECTRICAL CONNECTION NOT HAVING SOLDER ON BOTH SIDES OF THE BOARD. TWO CONDITIONS CONTRIBUTED TO THIS, (A) THE BELOW STANDARD PLATE THROUGH HOLE, AND (B) THE DESIGN NOT ALLOWING COMPLETE INSPECTION.						
CORRECTIVE ACTION-SPECTROL. CIRCUIT BOARD 89-11114-9 SURVEYED FOR REINSPECTION OF PLATED HOLES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	SP-99-24-3207F OSCILLATOR	FAR 7-01684-887	631226	80-FAC	YES	BENDIX YES 1040859-YT
FAILURE MODE-TWO OSCILLATORS REPORTEDLY FAILED WHEN INSTALLED IN TELEPAR 87-11841. FAILURE NOT CONFIRMED INOSCILLATO R. TELEPAR 87-11841 NOT FAILURE ANALYZED.						
CORRECTIVE ACTION-NO CORRECTIVE ACTION WAS TAKEN BECAUSE THE FAILURE COULD NOT BE CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-6CREW ERS	A-49-24-4384-F COMMUTATOR-6CREW	FAR 99-81171-9	631226	FACTORY	YES	FIFTH DIMENSIO NO N NRXD-854
FAILURE MODE-STRUCTURAL. COMMUTATOR OPERATED INTERMITTENTLY. FAILURE WAS CONFIRMED AND CAUSED BY A LOOSE SCREW BECU						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
RING THE ROTOR TO THE GEAR CASE ENDPLATE. THE SCREW WAS NOT PROPERLY TIGHTENED DURING COMMUTATOR ASSEMBLY, ALLOWING IT TO FALL INTO THE GEAR CASE AFTER 82 HOURS OF OPERATION AT ASTRONAUTICS.							092017
CORRECTIVE ACTION--RECOMMENDED THAT THE VENDOR IMPROVE INSPECTION PROCEDURES DURING COMMUTATOR ASSEMBLY TO PREVENT REOCCURRENCE OF THIS TYPE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ELECTRICAL FILTER ERS	LV-99-24-4337-C	FAR 7-11333-9	031219	FACTORY	YES NO		092002
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. LIMITER FILTER FAILED WHEN CHANNELS 1:2 AND 3 HAD NO OUTPUT. FAILURE ANALYSIS WAS WAIVED BY SLY RELIABILITY CONTROL.							
CORRECTIVE ACTION--NONE DUE TO WAIVER OF FAILURE ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ELECTRICAL FILTER ERS	LV-99-24-4336-C	FAR 7-11333-9	031219	FACTORY	YES NO		092001
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. LIMITER FILTER FAILED WHEN CHANNELS 1:2 AND 3 HAD NO OUTPUT. FAILURE ANALYSIS WAS WAIVED BY SLY RELIABILITY CONTROL. S/M 110, M/A 98-13337.							
CORRECTIVE ACTION--NONE DUE TO WAIVER OF FAILURE ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR69C-3016-1	UTP-PAT 89-01003-21	031219	FACTORY	NO NO	NO BOUNDS NO 2007371702	090776
FAILURE MODE-OUT OF TOLERANCE. DURING THE RESPONSE TIME TEST, THE OVERSHOOT WAS MEASURED AS 56 PERCENT. ALLOWED IS 10 PERCENT. THE OVERSHOOT WAS THE RESULT OF THE TEST SET UP WHICH RESULTED IN A SHOCK TUBE EFFECT. THIS WAS NOT A TRANSDUCER FAILURE.							
CORRECTIVE ACTION--NONE.							
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CONVAIR DIVISION

10 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4392-C TELEMETRY TRANSMITTER	FAR 27-12691-8	2820 031210	WTR	YES NO	YES NO	093505
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT. FAILURE NOT CONFIRMED.							
CORRECTIVE ACTION-ANALYSIS PERFORMED BY AIR FORCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4308-C TELEMETRY OSCILLATOR	FAR 7-01466	031210	SAN DIEG O	YES NO	SEMIOX 7-01466	091913
FAILURE MODE-DRIFT. THREE OSCILLATORS FAILED WHEN OUTPUT FREQUENCY DRIFTED WITH A STABLE INPUT VOLTAGE. FAILURE ANALYSIS WAS WAIVED PER TWX 03-61-003.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4297-F TELEMETRY AC-DC CONVERTER/TRANSISTOR	FAR 27-12232-3	031210	FACTORY	YES NO		091443
FAILURE MODE-ELECTRICAL SHORT. OUTPUT WOULD NOT VARY WITH CHANGE IN INPUT FREQUENCY. FAILURE CONFIRMED. CAUSE WAS TRANSISTOR 04 (2N335) SHORTING FROM BASE TO COLLECTOR. REASON FOR TRANSISTOR SHORTING COULD NOT BE DETERMINED. REPLACEMENT OF 04 RESTORED PROPER OPERATION.							
CORRECTIVE ACTION-NONE. REASON FOR TRANSISTOR FAILURE COULD NOT BE DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3223-F TELEMETRY OSCILLATOR	FAR 7-01664-801	031217	FACTORY	YES NO	SEMIOX 93540	092473
FAILURE MODE-ERRATIC OPERATION. THE OSCILLATOR COULD NOT BE ADJUSTED TO ITS PRESCRIBED FREQUENCY WITH NOMINAL VOLTAGE APPLIED.							
CORRECTIVE ACTION-THE RELIABILITY FAILURE ANALYSIS GROUP INITIATED CORRECTIVE ACTION, RECOMMENDING THAT IN THE FUTURE THE ENTIRE TELEMETRY PACKAGE BE PRO AND SENT FOR FAILURE ANALYSIS. THE OSCILLATOR FAILED WITHIN THE PACKAGE. THE FAILURE COULD NOT BE CONFIRMED.							

GENERAL DYNAMICS
CONVAIR DIVISION

13 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	/P1-8CO-01-137	COMPOSITE-J FACT	137F 031210	11	YES NO		097471
FAILURE MODE-OUT OF TOLERANCE. RF 1 CHANNEL B WAS AT 44 PCT FBW WHEN 50 PCT WAS EXPECTED.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-INSUFFICIENT EVIDENCE AVAILABLE BUT IT IS BELIEVED THE PROBLEM WAS DUE TO A SHIFT IN THE SUB CARRIER OSCILLATOR WHICH WAS SUBSEQUENTLY ADJUSTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-WIRING ERS	/P1-8CO-01-137	COMPOSITE-J FACT	137F 031210	ETR-11	YES NO		097470
FAILURE MODE-OUT OF TOLERANCE. ASCO AND WFCO SLIPS DID NOT APPEAR ON CHANNEL 1-8 WHEN THOSE FUNCTIONS WERE TRANSMITTED.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-INSUFFICIENT EVIDENCE AVAILABLE BUT IT IS BELIEVED THE PROBLEM WAS DUE TO FAULTY WIRING WITHIN THE TELEMETRY CANISTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC RF POWER AMPLIFIER/TUBE V-2 ERS	SLV-89-24-4424-F	FAR 27-01612-8	031210	FACTORY	YES BENOIX PACIFIC NO 1077064-4A		092997
FAILURE MODE-OUT OF TOLERANCE. OUTPUT WAS 6 WATTS WHEN 7 WATTS MINIMUM IS EXPECTED. FAILURE CAUSED BY FAULTY VACUUM TUBE.							
CORRECTIVE ACTION-ALL SUBSEQUENT UNITS BUILT BY VENDOR WILL INCLUDE TUBES WHICH HAVE BEEN OPERATED THROUGH A RUN IN TEST PRIOR TO INSTALLATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR, WIRING ERS	LV-99-24-4519-C	FAR 27-11610-823	031210	FACTORY	YES 6D/C NO		
FAILURE MODE-OPEN (ELECT). AN OPEN CONDITION WAS REPORTED BETWEEN JAP AND J24. CONTINUITY WAS EXPECTED. FAILURE NOT CONFIRMED BECAUSE FAILURE ANALYSIS WAS WAIVED.							

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COMVAIR DIVISION

18 JUN 1986

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
	CORRECTIVE ACTION-NONE. (FAILURE ANALYSIS) WAIVED. REF. MEMO FROM W.J. MALONEY, DATED 13 DEC. 1983.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER COMMUTATOR ERS	LV-99-24-4389-C	PAR 88-01171-28	2980 831814	SAN DIEG O	YES NO	FIFTH DIMENSION M MSID-419
FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR FAILED WHEN THE DISTANCE BETWEEN THE LEADING EDGES OF TWO CONSECUTIVE HAZARD PULSES ON OSCILLOGRAPH RECORD WAS 4.87 INCHES WHEREAS 4.75 TO 8.55 INCHES IS REQUIRED. FAILURE ANALYSIS WAS COMPLETED UPON LEARNING THAT THE TELEPAK WAS REMOVED FROM THE MISSILE DUE TO EXTENDED OPERATION WITHOUT COOLING. LACK OF COOLING WAS THE APPARENT CAUSE OF FAILURE.						
CORRECTIVE ACTION-NONE. SINCE FAILURE ANALYSIS WAS NOT PERFORMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER SIGNAL CONDITIONER ERS	LV-99-24-4355-F	PAR 87-12385-881	2270 831814	WTR O	NO YES	
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. AUXILIARY SIGNAL CONDITIONER FAILED WHEN CHANNEL 13 SEGMENT 7, THAT MONITOR'S MEASUREMENT TEST, INDICATED 130 PERCENT BANDWIDTH WHEN 50 PERCENT WAS EXPECTED. ALSO, THE IMPEDANCE BETWEEN PINS 6 AND 11 ON PLUG 4J3 READ 1123 OHMS, WHEREAS THE REPLACEMENT CONDITIONER MEASURED 327 OHMS AT THE SAME PINS. FAILURE WAS NOT CONFIRMED. THE REPORTED FAILURE WAS CAUSED BY CONDITIONS EXTERNAL TO THE SIGNAL CONDITIONER PACKAGE. THE 327 OHMS REPORTEDLY MEASURED BETWEEN PINS 6 AND 11 ON PLUG 4J3 WAS PROBABLY BETWEEN PINS 6 AND 11 ON PLUG 4P3 WHERE THE VALUE WOULD BE CORRECT.						
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TRANSDUCER, INSTALLATION ERS	LV-99-24-4438-F	PAR 7-01723-13	831213	SAN DIEG O	YES NO	BOURNS NO 48013-0-100-78 2
FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER WAS REPORTED TO HAVE AN OPEN WINDING. FAILURE WAS ATTRIBUTED TO MIGRATING CONTAMINATION CAUSING DISCONTINUITIES IN TRANSDUCER OUTPUT.						
CORRECTIVE ACTION-VENDOR HAS REVISED TRANSDUCER CLEANING METHODS TO ELIMINATE CONTAMINATION.						

GENERAL (MICS
CONVAIN DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VEHICLE NAME VEHICLE PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	A-99-24-4380-C	FAR 87-12305-811	931213	FACTORY	YES	BENDIX NO
FAILURE MODE--STRUCTURAL. COMMUTATOR REPORTED TO HAVE A CHIPPED SEGMENT CAUSING EXCESSIVE WEAR ON BRUSHES.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED. REF. MEMO FROM M. J. MALONEY DATED 13 DECEMBER 1963.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PFT-TP-69F1793-1	UTP-EQUAL/PPT 87-01992-13	931213	FACTORY	NO	MIANCKO NO P2-4106-13
FAILURE MODE-OUT OF TOLERANCE. DURING RFI TEST, OUTPUT AT 0-PSID WAS 9.358 VOLTS WHERE 0.0 VOLTS WAS SPECIFIED. FAILURE DUE TO INADVERTENT OVERPRESSURIZATION DURING TEST. (S/N 3050041).						
CORRECTIVE ACTION-RFI LAB TEST PROCEDURES CHANGED TO DELETE PRESSURE TESTING DURING RFI TESTS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	A-99-24-4373-P	FAR 87-01912	931212	FACTORY	YES	BENDIX NO 1077084-3-A
FAILURE MODE-OUT OF SPECIFICATION. RADIO FREQUENCY AMPLIFIER FAILED WHEN ITS OUTPUT INDICATED ONLY 6 WATTS. OUTPUT CANNOT BE LESS THAN 7 WATTS. FAILURE WAS CONFIRMED, HOWEVER, THE EXACT CAUSE WAS NOT DETERMINED.						
CORRECTIVE ACTION-RECOMMENDED THAT VENDOR REVIEW THE FAILURE ANALYSIS AND ALSO STUDY THE FEASIBILITY OF INSTITUTING A BURN-IN TIME FOR EACH AMPLIFIER BEFORE SHIPMENT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR ERS	A-99-24-4315-P	FAR	931212	FACTORY	YES	BENDIX-MONTROS NO E 1086408
FAILURE MODE-CONTAMINATION. TWO DC SEARMOTORS FAILED WHEN THEY EXHIBITED VARIATIONS IN SPEED. FAILURES WERE CONFIRMED AND ATTRIBUTED TO MATERIAL MISRATION BETWEEN THE GOVERNOR CONTACTS, CAUSING ERRATIC SPEED REGULATION.						
CORRECTIVE ACTION-REQUESTED REPLACEMENT OF THE HEAVYWEIGHT COMMUTATOR WITH A LIGHTWEIGHT COMMUTATOR.						

0001-0001-0001-0001

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP TIME	PRI DIP	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER, WIRING ERS	LV-99-24-4381-F LV-99-24-4381-F TELEMETRY SET AND TRANSDUC AMPLIFIER, WIRING ERS	PAR 27-01444-3	031812	FACTORY	YES	APPLIED ELECTRIC NO ONICS
FAILURE MODE-SHORT (SELECT). THE DIFFERENTIAL AMPLIFIER FAILED WHILE INSTALLED IN THE TOP PACKAGE SIGNAL CONDITIONER WHEN OUTPUT WAS ZERO VOLTS DC. EXPECTED OUTPUT IS 9.0 PLUS OR MINUS 0.10 VOLTS DC. FAILURE WAS CONFIRMED AND WAS CAUSED BY A SOLDER CONNECTION PROTRUDING THROUGH THE POTTING MATERIAL AND TOUCHING THE CASE OF THE DIFFERENTIAL AMPLIFIER.						
CORRECTIVE ACTION-VENDOR INFORMED OF FAILURE. TIGHTER INSPECTION IS BEING CONDUCTED AND THICKER INSULATION WILL BE USED DURING MANUFACTURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	A-99-24-4330-F A-99-24-4330-F TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	PAR 27-01444-3	031812	FACTORY	YES	KINETICS YES 27-01444-3
FAILURE MODE-ERRATIC OPERATION. DIFFERENTIAL AMPLIFIER FAILED WHEN THE OUTPUT WAS FOUND TO BE ERRATIC AND THE OUTPUT OF CHANNEL 1 WOULD NOT ADJUST. FAILURE NOT CONFIRMED						
CORRECTIVE ACTION-NOTIFIED RESPONSIBLE TEST PERSONNEL OF THE RESULTS OF THIS FAILURE ANALYSIS. NO SPECIFIC CORRECTIVE ACTION WAS TAKEN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC YLM CANISTER ERS	LV-99-24-4306-F LV-99-24-4306-F TELEMETRY SET AND TRANSDUC YLM CANISTER ERS	PAR 27-31941-933	230D 031811	FACTORY	YES	BENDIX NO
FAILURE MODE-OUT OF TOLERANCE. TELEMETRY PACKAGE FAILED WHEN CHANNEL 6 INDICATED EXCESSIVE NOISE OF 6 PERCENT OF INFORMATION BANDWIDTH.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FR99C-3018.1 FR99C-3018.1 TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	UVP-PAT 10-01009-81	031211	FACTORY	NO	BOURNS NO 2004208308
FAILURE MODE-OUT OF TOLERANCE. DURING THE RESPONSE TIME TEST, THE OVERSHOOT WAS MEASURED AS 92 PERCENT. ALLOWED IS 10 PERCENT. THE OVERSHOOT WAS THE RESULT OF THE TEST SETUP WHICH RESULTED IN A SHOCK TUBE EFFECT. THIS WAS NOT A TRANSDUCER FAILURE. S/N 5880189.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC RF TRANSMITTER-WIRING ERS	A-99-24-4582-F	FAR 87-01610-1	031210	FACTORY	YES	BENDIX NO 3131107-3
FAILURE MODE-CONTAMINATION. UNIT HAD NO OUTPUT. FAILURE CONFIRMED. CAUSE WAS EXCESSIVE SOLDER IN THE DOUBLER STAGE SHORTING THE FEED THROUGH TO GROUND.						
CORRECTIVE ACTION-REQUESTED VENDOR TO TIGHTEN INSPECTION TECHNIQUES. VENDOR REPLIED THAT INSPECTION PROCEDURES WERE ADEQUATE BUT THAT THIS UNIT SOMEHOW MISSED FINAL INSPECTION. IN THE FUTURE, ALL ASSEMBLIES MUST FIRST BE STAMPED BY VENDOR INSPECTION PRIOR TO BEING ACCEPTED BY GD/C INSPECTION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC 816WML CONDITIONER-RESISTOR ERS	LV-99-24-4337-F	FAR 87-12479-1	031210	FACTORY	YES	NO
FAILURE MODE-OUT OF TOLERANCE. SUMMATION NETWORK FAILED EOP 330.770.8, PARAGRAPH 5.2, BY READING 0.356 VOLT DC WHEN 0 PLUS OR MINUS 0.002 VOLT DC IS EXPECTED. POTTING WAS ALSO CRACKED BY THE MOUNTING BRACKET. FAILURE WAS CONFIRMED AND WAS CAUSED BY OVERHEATING OF RESISTOR R-17, RESULTING IN REDUCED RESISTANCE. THIS CHANGE IN RESISTANCE PRODUCED AN UNBALANCED BRIDGE NETWORK, CAUSING AN EXCESSIVE VOLTAGE AT THE OUTPUT OF THE BRIDGE.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	LV-99-24-4360-F	FAR 7-01466-061	2300 031209	FACTORY	YES	BENDIX NO 1041968-4-2 TO E 31
FAILURE MODE-STRUCTURAL. DUE TO A BROKEN WIRE, THE SUBCARRIER OSCILLATOR INDICATED INTERMITTENT OUTPUT. THE BREAK W AS POSSIBLY THE RESULT OF METAL FATIGUE CAUSED BY EXCESSIVE HANDLING.						
CORRECTIVE ACTION-PRODUCTION PERSONNEL WERE CAUTIONED TO TAKE CARE IN HANDLING OF PARTS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-99-24-4364-C	FAR 7-01466-087	031209	FACTORY	YES	BENDIX NO 1030702-13K/TO E30
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT FROM OSCILLATOR.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	VEHICLE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	DATE	TIME	OTH	VENDOR PART NO
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.					
INSTRUMENTATION-A/B	LV-99-24-4380-F	031209	FACTORY	YES	YES BENDIX
TELEMETRY SET AND TRANSDUC	POWER SUPPLY	FAR		NO	NO 1046173-S-A
ERS		27-01228			
FAILURE MODE-OUT OF TOLERANCE. POWER SUPPLY FAILED WHEN THE 108 VOLT OUTPUT MONITOR MEASURED 0.748 VOLT DC WHEN 1.4 TO 1.469 VOLTS DC IS EXPECTED. CAUSE OF FAILURE COULD NOT BE DETERMINED SINCE THE FAILURE COULD NOT BE DUPLICATED LONG ENOUGH TO ISOLATE THE PROBLEM AREA. A BROKEN POTENTIOMETER COULD HAVE CAUSED THE FAILURE BUT IT MAY HAVE BEEN BROKEN DURING REMOVAL FROM THE CIRCUIT.					
CORRECTIVE ACTION-NONE.					
INSTRUMENTATION-A/B	LV-99-24-4391-C	031209	FACTORY	YES	
TELEMETRY SET AND TRANSDUC	IN-FLIGHT CALIBRATOR	FAR		NO	
ERS		7-12222-9			
FAILURE MODE-ERRATIC OPERATION. FAILED TO PRODUCE ALTERNATE POSITIVE AND NEGATIVE PULSES. PRODUCED NEGATIVE PULSES ONLY.					
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.					
INSTRUMENTATION-A/B	A-99-24-4309-F	031209	FACTORY	YES	YES MAYBERRY
TELEMETRY SET AND TRANSDUC	AMPLIFIER	FAR		NO	NO 128-1A
ERS		38-01180-3			
FAILURE MODE-ERRATIC OPERATION. DIFFERENTIAL AMPLIFIER FAILED WHILE INSTALLED IN A TELEMETRY PACKAGE. OUTPUT WAS NO N-LINEAR. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE DIFFERENTIAL AMPLIFIER BEING ADJUSTED TO 3 VOLTS DC IN THE SAT URATED CONDITION (BEYOND ITS MAXIMUM VOLTAGE GAIN CAPABILITY).					
CORRECTIVE ACTION-APPROPRIATE FACTORY PERSONNEL NOTIFIED OF THIS CONDITION AND GAIN ADJUSTMENT PROCEDURE REVISED TO PREVENT RECURRENCE.					
INSTRUMENTATION-A/B	A-99-24-4322-F	031209	FACTORY	NO	NO KINETICS
TELEMETRY SET AND TRANSDUC	DIFFERENTIAL AMPLIFIER	FAR		NO	NO 27-81443-3
ERS		87-01444-3			
FAILURE MODE-FAIL DURING OPERATION, 2 UNITS REPORTED FAILED BECAUSE ZERO ADJ. COULD NOT BE MADE. FAILURES CONFIRMED					

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
<p>CAUSED BY NO OUTPUT FROM CHANNEL NO 8 RESULTING FROM AN EXCESSIVE AMOUNT OF VOLTAGE BEING APPLIED TO THE INPUTS.</p>						
<p>CORRECTIVE ACTION-A 500 OHM RESISTOR WAS ADDED TO TEST SET TO PREVENT SURGES AT POWER ON.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	PPT-TP-68F-1795-1 UTP-EUAL/PPT DIFFERENTIAL PRESSURE TRANSDUCER 87-01898-13	831808	FACTORY	YES	MIANCKO	NO PS-4108-13
<p>FAILURE MODE-ELECTRICAL OPEN. AT START OF FREQUENCY RESPONSE TEST, OUTPUT RIPPLE WAS 480 MV WHERE 50 MV ARE ALLOWABLE. FAILURE WAS CAUSED BY A BROKEN WELD IN ELECTRICAL PACKAGE. (8/N 3110114).</p>						
<p>CORRECTIVE ACTION-VENDOR INCREASED INSPECTION OF WELDS AND INSTITUTED 100 PERCENT CHECK OF UNITS FOR OUTPUT RIPPLE DURING IAT.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	FAR-A-99-24-4423 FAR ACCELEROMETER TRANSDUCER 7-01413-9	831808	FACTORY	YES	BORG-WARNER	NO 9747-8
<p>FAILURE MODE-DRIFT. THE TRANSDUCER WAS REJECTED BECAUSE THE OUTPUT FREQUENCY ERROR WAS GREATER THAN THE ALLOWABLE TOLERANCES. THE FAILURE WAS THE RESULT OF A SLACKENING OF THE VIBRATING WIRE ASSEMBLY DUE TO AGING CAUSING A DROP IN FREQUENCY OF VIBRATION.</p>						
<p>CORRECTIVE ACTION-FAR-A-99-24-9229 RECOMMENDED DESIGN GROUP REVISE SPEC CONTROL DNG REDUCING ORIGINAL ENDPOINT TOLERANCES SO AN EVENTUAL FREQUENCY CREEP WILL NOT SHIFT THE OUTPUT BEYOND TLM CHANNEL LIMITS. DESIGN REPLIED THAT NO ACTION WOULD BE TAKEN BECAUSE OF THE COST INVOLVED AND THE FACT OF NO FAILURE RATE IN THIS MODE. (60/C LTR. 84-373-1-P-25 DATED 640324). A MEMO WAS SENT TO DESIGN GROUP FURTHER CLARIFYING NEED FOR CORRECTIVE ACTION (60/C LTR. DEPT. 14 8-1 DATED 640421).</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	A-19-24-4311-7 INSTRUMENTATION TRANSDUCER, INSTRUMENTATION	7-01750-9	831808	SAN DIEGO	YES	SEYMONIC NO M-75
<p>FAILURE MODE-FAIL DURING OPERATION. TRANSDUCER FOR MEASUREMENT MIADP FAILED DURING FACTORY CHECKOUT WHEN THE ELECTRICAL CONNECTOR CAME LOOSE AND ROTATED IN THE TRANSDUCER BODY. THE CONNECTOR BROKE LOOSE AT ITS SOLDER JOINT DUE TO LACK OF SOLDER ADHESION.</p>						
<p>CORRECTIVE ACTION-VENDOR WAS REQUESTED TO REVIEW AND UPDATE SOLDERING TECHNIQUES TO PREVENT RECURRENCE OF THIS PROBLEM.</p>						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIF DATA SOURCE	VEHICLE	SITE	PRI	VEHICLE NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE DIF	TIME DIF	OTH	VEHICLE PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERR	LV-99-24-4476-F	FAR 7-01723-11	631206	SAN DIEG	YES	BOURNS NO 42013-G-30-752
<p>FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER INDICATED A NEGATIVE STATIC ERROR OF MINUS 10.23 PERCENT DURING ROUTINE CALIBRATION. IN THE YEAR SINCE THE DATE OF MANUFACTURE, AIR LEAKAGE THROUGH THE GLASS ELECTRICAL CONNECTOR INCREASED. INTERNAL PRESSURE FROM ZERO TO 9 PSIA, CAUSING THE NEGATIVE ERROR. THE ACCEPTANCE TEST DATA OF 18NOV62 SHOWED THE NEGATIVE STATIC ERROR WAS ALREADY AT THE MAXIMUM PERMITTED BY SPECIFICATIONS. THE LOCATION OF THE LEAKAGE PATHS THROUGH THE GLASS AND THE LACK OF CHIPS, CRACKS, OR DAMAGE, INDICATED POROSITY IN THE GLASS INSULATOR RATHER THAN CONNECTOR DAMAGE CAUSED THE FAILURE.</p> <p>CORRECTIVE ACTION-RECOMMENDED TESTS BE CONDUCTED TO ASSURE THE ABSENCE OF LEAKAGE PATHS INTO THE CASE, AS THIS MAY CAUSE A SHIFT IN REFERENCE PRESSURE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERR	SLV-99-24-4474-F	FAR 7-01723-11	631206	SAN DIEG	YES	BOURNS NO 42013-G-30-752
<p>FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER INDICATED EXCESSIVE NEGATIVE STATIC ERROR DURING ROUTINE CALIBRATION. FAILURE WAS NOT CONFIRMED. REPORTED FAILURE MAY HAVE BEEN DUE TO THE USE OF INCORRECT CALIBRATION TECHNIQUES OR TO THE USE OF FAULTY EQUIPMENT.</p> <p>CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED-REQUESTED APPROPRIATE PERSONNEL THAT IN A FAILURE OF THIS TYPE THE TECHNIQUES AND EQUIPMENT USED BE RECHECKED BEFORE TRANSDUCERS ARE REJECTED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERR	LV-99-24-4468-F	FAR 7-01723-11	631206	SAN DIEG	YES	BOURNS NO 42013-G-30-752
<p>FAILURE MODE-OUT OF TOLERANCE. THREE TRANSDUCERS INDICATED POSITIVE STATIC ERRORS FROM PLUS 1.56 TO PLUS 3.92 PERCENT. THE MAXIMUM ALLOWABLE IS PLUS OR MINUS 1.0 PERCENT. TWO OF THE TRANSDUCERS FAILED DUE TO OVERPRESSURIZATION OCCURRING DURING THE VENDORS CLEANING PROCESS. THE THIRD FAILED DUE TO THE BALL BEING PULLED OUT OF ITS SOCKET. EITHER A SHIFT IN THE BALL PUSHROD POSITION, OR TILTING OF THE BALL SOCKET HALF, ALLOWED BY CRACKED SOLDER JOINTS, COULD BE RESPONSIBLE FOR THE POSITIVE SHIFT. THE SOLDER JOINTS WERE DAMAGED BY ROUGH HANDLING OR BY DROPPING THE TRANSDUCER.</p> <p>CORRECTIVE ACTION-SURVEY 88-89, REVISION A, PURSUING ALL INSTALLED, IN STOCK, AND SPARE UNITS FOR A TEST CALLED OUT BY THE ENGINEERING DEPARTMENT PER MEMO 377-8-88 WAS APPROVED 28 OCT 63. THE VENDOR HAS INITIATED NEW CLEANING PROCEDURES WHICH SHOULD ELIMINATE THE OVERPRESSURIZATION PROBLEM. MISSILE CHECKOUT PERSONNEL WERE CAUTIONED AGAINST OVERPRESSURIZATION OF THE TRANSDUCERS.</p>						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POSITION TRANSDUC ERS	FR8C-2161.1 FR8C-2161.1 FR8C-2161.1	UTP-BUAL/PPT 68-01008-1	631206	FACTORY	YES	SEYONIC NO 5041-0101	800730
FAILURE MODE-ELECTRICAL OPEN. THE TRANSDUCER INDICATED AN OPEN CIRCUIT BETWEEN 80 AND 90 PERCENT OF ITS RANGE DUE TO A BROKEN LEAD WIRE TO THE WIPER. THE METHOD OF SOLDERING AND THEN POTTING TO RELIEVE STRESS WAS NOT ADEQUATE.							
CORRECTIVE ACTION-THE VENDOR CHANGED SOLDERING AND POTTING PROCEDURES AND ALSO MOVED THE JOINT TO FACILITATE INSPECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PPT-TP-89F-1795.1 PPT-TP-89F-1795.1 PPT-TP-89F-1795.1	UTP-BUAL/PPT 27-01352-3	631206	FACTORY	NO	MIANCRO NO 28-4108-13	800623
FAILURE MODE-OUT OF TOLERANCE. DURING ALTITUDE AND POST ALTITUDE TEST, THE UNIT EXCEEDED ALLOWABLE ERROR BAND. FAILURE FOUND DUE TO INADVERTENT OVERPRESSURIZATION BY FAULTY TEST EQUIPMENT. (S/N 305-0028).							
CORRECTIVE ACTION-TEST PROCEDURE AND SET-UP MODIFIED TO PREVENT REOCCURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PPT-TP-89F-1795.1 PPT-TP-89F-1795.1 PPT-TP-89F-1795.1	UTP-BUAL/PPT 27-01352-13	631205	FACTORY	YES	MIANCRO NO 28-4108-13	800624
FAILURE MODE-OUT OF TOLERANCE. DURING POST ACCELERATION PROOF CYCLE, ERROR BAND WAS 0.1 PERCENT OVER READOUT ALLOWANCE. OPERATION CONSIDERED MARGINAL (NO DATA SHIFT INDICATED, S/N 305-0028).							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER, CIRCUIT BOARD ERS	LV-98-24-4388-F LV-98-24-4388-F LV-98-24-4388-F	FAR 55-01120-5	631204	FACTORY	YES	MAYBERRY NO 128-1B	800621
FAILURE MODE-SHORT (ELECTRICAL). DIFFERENTIAL AMPLIFIER FAILED WHEN PINS 4 AND 6 WERE OBSERVED TO BE ELECTRICALLY SHORTED. FAILURE WAS CONFIRMED AND WAS CAUSED BY THE WIRE TO PIN 4 BEING PUNCTURED BY PIN 6.							
CORRECTIVE ACTION-RECOMMENDED THE VENDOR ENLARGE THE CIRCUIT BOARD TO ALLOW ADEQUATE ROOM FOR PIN CLEARANCE. VENDOR REPLIED THAT NEW MOUNTING TECHNIQUES ARE BEING INITIATED TO PREVENT THIS PROBLEM FROM RECURRING.							

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CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTM	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4284-F TELEMETRY TLM CANISTER	PAR 87-11841-935	8300 831204	FACTORY	YES BENDIX NO 87-11841-935		898754
FAILURE MODE-FAIL DURING OPERATION. 8 TO 7 PCT NOISE WAS REPORTED ON CHANNELS 19 AND 2. CAUSE-MOST PROBABLY MISSILE TEST CABLING.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	89C-2037 TEMPERATURE TRANSDUCER	UTP-PRT 7-01835-5	831204	60/C	YES LEVIA NO 989348		891185
FAILURE MODE-SHORT (ELECT). INSULATION RESISTANCE DURING HIGH TEMPERATURE-HUMIDITY TEST WAS LESS THAN 20 MEGOHMS. THIS WAS CAUSED BY IMMERSING IN WATER PRIOR TO THIS TEST FOR A CALIBRATION AT 32 DEGREES F.							
CORRECTIVE ACTION-A VINYL BAG WILL BE USED TO KEEP LIQUIDS OUT OF THE PROBE DURING CALIBRATIONS IN ICE WATER. ALSO THE TRANSDUCER WILL BE AIR DRIED AT 150 DEGREES F. FOR 30 MINUTES AFTER IMMERSION IN LIQUIDS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-89C-2035.1 PRESSURE TRANSDUCER	UTP-PRT 80-01003-29	831204	FACTORY	YES BOURNS NO 2007371702		890773
FAILURE MODE-LEAK-INTERNAL. DURING PREVIBRATION PROOF CYCLE, THE TRANSDUCER OUTPUT SHIFTED 3 PERCENT AT ALL POINTS. THIS WAS DUE TO A SMALL LEAK IN THE SOLDER JOINT OF THE ELECTRICAL CONNECTOR. THIS WAS CAUSED BY FAULTY SOLDERING. S/N 3090477.							
CORRECTIVE ACTION-ARRANGEMENTS HAVE BEEN MADE FOR ALL SOLDERING TO BE CONTROLLED BY N87C-PRUC-1988 (NASA SOLDERING REQUIREMENTS), AND ALL SOLDERING PERSONNEL TO BE CERTIFIED BY NASA CERTIFIED INSTRUCTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PET-TP-2-0564.1A PRESSURE TRANSDUCER	UTP-PET 87-01845-9	831204	FACTORY	YES COLVIN NO 401-A-18-78		890760
FAILURE MODE-OUT OF TOLERANCE. THE UNIT FAILED RESOLUTION TEST WHEN 3.8 PERCENT OF STEPS EXCEEDED 0.25 PERCENT RESOLUTION. ONE STEP WAS 0.6 PERCENT FSVR.							
CORRECTIVE ACTION-THE RESOLUTION TEST WAS REVIEWED AND THE REQUIREMENT WAS REVISED TO 3 PERCENT FSVR.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-4336-F SIGNAL CONDITIONER-RESISTOR	FAR 87-18478-1	831803	FACTORY	YES NO		892814
FAILURE MODE-OUT OF TOLERANCE. SUMMATION NETWORK FAILED EOP 330.770-9. PARAGRAPHS 9.2 AND 9.4. BY READING 0.33 AND 0.39 VOLT DC, RESPECTIVELY, WHEN 0 PLUS OR MINUS 0.008 AND 0.030-008 VOLT DC ARE EXPECTED. FAILURE WAS CONFIRMED AND CAUSED BY THE OVERHEATING OF RESISTORS R-14 AND R-17, RESULTING IN REDUCTION IN RESISTANCE. THIS CHANGE IN RESISTANCE PRODUCED AN UNBALANCED BRIDGE NETWORK WHICH RESULTED IN AN EXCESSIVE VOLTAGE AT THE OUTPUT OF THE BRIDGE.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-89-24-276-P AMPLIFIER, CONNECTOR	FAR 87-01841-1	831803	FACTORY	NO YES	JAYBERRY 114-9	892495
FAILURE MODE-OUT OF TOLERANCE. THE DIFFERENTIAL AMPLIFIER REPORTEDLY FAILED WHEN CHANNEL 12 HAD 10 TO 12-PERCENT NOISE. DIFFERENTIAL AMPLIFIER PASSED THE NOISE TEST AS A COMPONENT, BUT WAS REJECTED BECAUSE THE TELEMETRY PACKAGE NOISE WAS REDUCED TO AN ACCEPTABLE LEVEL BY REPLACING THIS UNIT. REPORTED FAILURE WAS NOT CONFIRMED. THE REPORTED FAILURE WAS APPARENTLY CAUSED BY A DISCREPANCY WITHIN THE TELEMETRY PACKAGE OR BY A POOR ELECTRICAL CONNECTION CORRECTED WHEN THE DIFFERENTIAL AMPLIFIER WAS REPLACED.							
CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. RECOMMENDED THAT TELEPAK FROM WHICH THIS UNIT WAS REMOVED BE EXAMINED FOR POSSIBLE DEFECTS THAT WOULD EXPLAIN THE FAILURE REPORTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4266-F COMMUTATOR BRUSH	FAR	2500 831802	FACTORY	YES NO	NEED AND REESE 1096485-58	892733
FAILURE MODE-STRUCTURAL. CHANNELS 15 AND 16 HAD NO COMMUTATION. FAILURE CONFIRMED CAUSE-MOTOR OVERHEATING DUE TO EXCESSIVE BRUSH WEAR.							
CORRECTIVE ACTION-NONE. HEAVYWEIGHT TELEPAK8 ARE BEING PHASED OUT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LY-A9-24-4343-F PRESSURE TRANSDUCER	FAR 87-01396-39	288-0 831802	FACTORY	YES NO	SERVOONIC	
FAILURE MODE-STRUCTURAL. FAILURE WAS CAUSED BY A LEAKING SOUNDON TUBE RESULTING FROM STRESS-CORROSION CRACKING AT THE TUBE BASE. A SOLDER JOINT AT THE WIPER END ALSO FAILED DUE TO A LOW STRENGTH JOINT.							

18 JUN 1966

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							091896
	CORRECTIVE ACTION-BOURDON TUBE DESIGN WAS CHANGED TO A WELDED END CONFIGURATION. EACH UNIT WAS CYCLED 200 TIMES UNDER 3000 PSI. BAKERING FLUX WAS CHANGED AND BOURDON TUBES LEAK TESTED WITH HELIUM GAS. THE FOREGOING WAS ACCOMPLISHED PRIOR TO JUNE 1963.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POSITION TRANSDUCER ERS	FR88C-2181-1	UTP-0UAL/PPT 69-01009-1	631202	FACTORY	YES SERVONIC NO 5041-0101	090739
	FAILURE MODE-OUT OF SPECIFICATION. NO SPLIT LOCK WARNER WAS SUPPLIED AND THERE WAS NO ARROW POINTING TO THE FINE ADJUSTING SCREW.						
	CORRECTIVE ACTION-VENDOR WILL IMPROVE FINAL INSPECTION AT FACTORY.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER POTENTIOMETER ERS	LV-99-24-4313-F	FAR 27-01238-1	631129	FACTORY	YES STATNAM NO CAS-12	093680
	FAILURE MODE-OPEN (ELECT). AMPLIFIER FAILED WHEN THE GAIN-ADJUSTMENT POTENTIOMETER DID NOT CHANGE THE OUTPUT LEVEL. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE WIPER BEING BROKEN IN THE GAIN-ADJUST POTENTIOMETER.						
	CORRECTIVE ACTION-VENDOR HAS INITIATED CORRECTIVE ACTION TO PREVENT RECURRENCE OF THIS FAILURE MODE AT THE MANUFACTURING LEVEL.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR TRANSISTORS ERS	LV-AD-24-4362-F	FAR 7-12222-5	631127	FACTORY	YES NO	093346
	FAILURE MODE-OUT OF TOLERANCE. INFLIGHT CALIBRATOR FAILED WHEN ONLY POSITIVE PULSES WERE BEING GENERATED. AFTER FULL WARMUP NO PULSES WERE GENERATED. FAILURE WAS CONFIRMED AND CAUSED BY USING TRANSISTORS OF DIFFERENT GAIN CHARACTERISTICS IN THE BALANCED FLIP-FLOP CIRCUIT.						
	CORRECTIVE ACTION-RECOMMENDED THAT THE APPLICABLE BLUEPRINT BE AMENDED, REQUIRING TRANSISTORS OF THE SAME GAIN CHARACTERISTICS BE USED IN THE BALANCED FLIP-FLOP CIRCUIT.						

GENERAL IAWICS
CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGEOVER SWITCH BEARING ERS	A-98-24-4889-F 2-D178-3	FAR	031127	FACTORY	YES	KINETICS NO M-172-4	001010
FAILURE MODE-FAIL DURING OPERATION. UNIT WOULD NOT SWITCH FROM INTERNAL TO EXTERNAL; FAILURE CONFIRMED. CAUSE, DEMO LISTED BALL BEARINGS ON THE WORK GEAR. REASON FOR FAILURE COULD NOT BE DETERMINED.							
CORRECTIVE ACTION-NONE. INFORMATION RAR A-98-24-8163 WAS SENT TO VENDOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	PET-TP-2-0364-1A 27-01243-9	UTP-PET	031126	FACTORY	NO	BOURNS NO 42011-0-150-73	000764
FAILURE MODE-OUT OF SPECIFICATION. DURING EXAMINATION OF THE PRODUCT, UNIT WAS NOT TO ENGINEERING DRAWING DUE TO THE DIAMETER OF THE MACHINED END BEING MEASURED AS 0.030 INCHES WHEN PRINT CALLOUT WAS 1.002 INCHES. VENDOR DRAWING WAS DETERMINED TO BE IN ERROR.							
CORRECTIVE ACTION-6D/C INSTITUTED CORRECTION OF THE VENDOR DRAWING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER; WIRING ERS	SLV-98-24-4280-F 55-01120-8	FAR	031125	FACTORY	YES	MAYBERRY NO 128-1B	003502
FAILURE MODE-OPEN(ELECT). SECTION A HAD NO OUTPUT. FAILURE CONFIRMED. FAILURE WAS DUE TO AN OPEN WIRE AT INTERNAL RECEPTACLE, PIN 2.							
CORRECTIVE ACTION-ALL PERSONNEL ASSOCIATED WITH THE AMPLIFIER CONSTRUCTION WERE CAUTIONED TO USE GREATER CARE. THE CASE INTERIORS ARE NOW FILLED WITH FOAM TO ADD SUPPORT TO RECEPTACLE LEADS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER-CRYSTAL RECTIFIER ERS	LV-98-24-4300-F 27-18302-803	FAR	031125	FACTORY	YES	NO	001010
FAILURE MODE-SHORT (ELECT). UNIT OUTPUT COULD NOT BE ADJUSTED BELOW 3.0 VDC. FAILURE CONFIRMED. CAUSE-SHORT BETWEEN RESISTOR R11 AND TERMINAL 8 OF TRANSFORMER T-1.							
CORRECTIVE ACTION-ALL PERSONNEL ASSOCIATED WITH CONSTRUCTION OF THIS UNIT WERE INFORMED OF FAILURE AND URGED TO INC REASSE THE QUALITY OF THEIR WORK.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	CT-99-24-280-C SUBCARRIER OSCILLATOR MODULE ASSEMBLY- 27-01333-11 PIN	FAR	1160	FACTORY	YES	BENDIX	991563
FAILURE MODE-OPEN ELECTRICAL. THIS SUBCARRIER OSCILLATOR MODULE ASSEMBLY REPORTEDLY FAILED DURING MANUFACTURING TESTING FOR ELECTRICAL TEST CTP 88. THE INDICATION OF FAILURE WAS AN ELECTRICAL OPEN BETWEEN PLUG J-8 PIN 4, AND PLUG J-3 PIN 13. FUNCTIONAL TESTING CONFIRMED THE REPORTED FAILURE. THE ANALYSIS WAS CANCELED DUE TO A DIRECTIVE FROM J.B. OHA, CENTAUR RELIABILITY, DATED NOVEMBER 19, 1963. THIS DIRECTIVE REQUIRED CANCELLATION BEFORE THE ANALYSIS COULD BE COMPLETED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER	A-99-24-4334-F TELEMETRY SET AND TRANSDUC AMPLIFIER	FAR 87-12371-913	93125	FACTORY	NO		991537
FAILURE MODE-OUT OF SPECIFICATION. TELEMETRY CANISTER FAILED DURING REMOVAL WHEN THE FREQUENCY DEVIATIONS ON ALL CHANNELS WERE OUT OF SPECIFICATION LIMITS. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A LOW GAIN OF THE VIDEO AMPLIFIER RESULTING FROM ADJUSTMENT WITH FAULTY TEST EQUIPMENT AT ETR.							
CORRECTIVE ACTION-RECOMMENDED TEST LABORATORY AT ETR NOT OPEN TELEMETRY CANISTERS FOR ADJUSTMENT, OR AS AN ALTERNATE, TEST EQUIPMENT CALIBRATION AND VALIDATION REQUIREMENTS BE INCREASED FROM EVERY 180 DAYS TO EVERY 90 DAYS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	FR-69C-2035-1 PRESSURE TRANSDUCER	UTP-PAT 69-01003 29	93125	FACTORY	NO	BURNS	990774
FAILURE MODE-OUT OF TOLERANCE. ON THE POST VIBRATION PROOF CYCLE THE ERROR (1.21 PERCENT) WAS GREATER THAN ALLOWABLE.							
CORRECTIVE ACTION-NONE. THIS WAS NOT A FAILURE. REVISION B TO SPEC. CONTROL DRAWING HAD PREVIOUSLY BEEN RELEASED (9-25-63) CHANGING THE ALLOWABLE STATIC ERROR BAND TO PLUS OR MINUS 1.0 PERCENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC IN-FLIGHT CALIBRATOR/TRANSDUCER	LV-99-24-4397 F IN-FLIGHT CALIBRATOR/TRANSDUCER	FAR 87-11610-623	2160	FACTORY	YES		

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM'S AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-REPLACED 5N37A TYPE TRANSISTORS WITH TYPE 5N37A.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR/TRANSDUC ERS	LV-AS-24-4239F CALIBRATOR/TRANSDUC	FAR 7-12222-9	2160 631122	FACTORY	YES NO	
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 8 INFLIGHT CALIBRATOR WAS REPORTED TO HAVE A SPLIT IN THE 100 PCT PULSE. FAILURE CONFIRMED. CAUSE INSUFFICIENT GAIN OF TRANSISTOR 64 (5N37A).						
CORRECTIVE ACTION-5N37A TRANSISTORS WERE MADE REPLACEMENTS FOR THE 5N37A TYPE VIA ECM AS TO B/P 27-12222. TYPE 2M 238A HAVE A CURRENT GAIN OF 18 AS COMPARED TO 9, FOR THE 5N37A TYPE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POSITION TRANSDUC ERS	FAR-BLV-99-24-4293 POSITION TRANSDUC	FAR 69-01003-1	2160 631122	FACTORY	YES NO	YES SERVONIC NO 2401-0101
FAILURE MODE-STRUCTURAL. TWO TRANSDUCERS FAILED WHEN THE CLAMPING SCREWS BROKE WHILE MAKING TRANSDUCER ADJUSTMENTS. FAILURE RESULTED FROM BENDING AND FATIGUE OF THE SCREWS BECAUSE THE KNUBBLED SHAFT OF THE COUPLING ADAPTER WAS TOO SMALL TO PROVIDE SECURE CLAMPING.						
CORRECTIVE ACTION-THE SHAFT DIAMETER ON THE 69-11514 COUPLING ADAPTER CHANGED FROM 0.187 PLUS OR MINUS 0.015 TO 0.187 PLUS 0.004, MINUS 0.002 INCH DIAMETER. A-9 ADAPTER WAS CREATED WITH THE NEW TOLERANCE TO REPLACE THE -7 ADAPTER. C1223615 WAS ISSUED TO CHECK ALL -7 PART. IF OVERSIZE, REMARK TO -9. IF UNDERSIZE, SCRAP THE PART.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC RECTIFIER ERS	LV-AS-24-4249-F RECTIFIER	FAR 27-11623-3	2160 631122	FACTORY	YES NO	
FAILURE MODE-OUT OF TOLERANCE. OUTPUT OF CRYSTAL RECTIFIER WAS REPORTED OUT OF TOLERANCE. FAILURE CONFIRMED. CAUSE-RECTIFIER WAS APPARENTLY SET UP WITHOUT SUFFICIENT WARM UP OR CHANGE IN COMPONENT VALUES.						
CORRECTIVE ACTION-RESISTORS USED IN THIS UNIT WERE DISCONTINUED FROM USE BECAUSE THEY WERE SENSITIVE TO TEMPERATURE CHANGES NO DRIFT PROBLEMS WERE APPARENT IN UNITS UTILIZING THE NEW RESISTORS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-99-24-4235-Y OSCILLATOR	FAR 7-01468-687	631122	FACTORY	YES NO	YES SENDIX NO 1050709-13-R
FAILURE MODE-FAIL DURING OPERATION. SUBCARRIER OSCILLATOR FAILED WHEN THE FREQUENCY CHANGED 20 TO 30 CPS. FAILURE MODE						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
AS CONFIRMED AND ATTRIBUTED TO THE CHANGING CHARACTERISTICS OF THE V-1 MODULATOR VACUUM TUBE.							992984
CORRECTIVE ACTION-NONE. SINCE THE BENDIX ROUND TELEMETRY CANISTER IS BEING REPLACED WITH A NEW LIGHTWEIGHT BENDIX T ELEPAK WHEREIN THIS OSCILLATOR IS NO LONGER USED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	LV-99-24-4882-F	FAR 87-11041-933	8180 83122	FACTORY	YES BENDIX NO 87-11041-933		892730
FAILURE MODE-FAIL DURING OPERATION. CHANNEL 18 WAS REPORTED OUT OF TOLERANCE, LOW BY 140CPB.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	SLV-99-24-4393-F	FAR 87-01638-8	83122	FACTORY	YES FIFTH DIMENSION NO M MEXD-461		891632
FAILURE MODE-OPEN (ELECT). EXCESSIVE SPIKING ON LEADING EDGE OF SEGMENT 27 CHANNEL 11. FAILURE CAUSED BY DIFF AMPLIFIER INPUT BEING OPEN CIRCUITED WITH NEGATIVE VOLTAGE APPLIED TO OUTPUT.							
CORRECTIVE ACTION-DESIGN CHANGE CALLING OUT A JUMPER BETWEEN NEGATIVE PEDESTAL SEGMENTS OF COMMUTATOR RINGS USED FOR DIFF AMPLIFIER INPUT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR-POTENTIOMETER ERS	LV-99-24-4411-F	FAR 87-01632-137	83121	FACTORY	YES BENDIX NO 1069093-A-8/70 E300		893334
FAILURE MODE-OPEN (ELECT). UNSTABLE OUTPUT FREQUENCY. FAILURE CAUSED BY BREAKS IN WINDING OF R18 POTENTIOMETER.							
CORRECTIVE ACTION-VENDOR HAS IMPROVED QUALITY CONTROL TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	CT-99-24-3083-C	FAR 7-01633-8	1240 83119	ETR	YES LEWIS NO 898348		
FAILURE MODE-NONE. THE ELECTRICAL CONNECTOR BROKE FROM THE TRANSDUCER CASE AT THE SOLDER JOINT. FAILURE ANALYSIS WAS CANCELED.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-58-24-3009-C TEMPERATURE TRANSDUCER	FAR 7-01833-3	1880 031116	ETR	YES NO	LEWIS ENG.
FAILURE MODE-STRUCTURAL. CONNECTOR CAME LOOSE FROM THE TRANSDUCER CASE AT THE SOLDER JOINT.						
CORRECTIVE ACTION-NONE. AVO FROM CENTAUR RELIABILITY DATED 031227 CANCELLED FAILURE ANALYSIS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4308-F AMPLIFIER	FAR 95-01120-3	031116	SAW DIEG O	YES NO	MAYBERRY 128-1A
FAILURE MODE-ERRATIC OPERATION. DIFFERENTIAL AMPLIFIER FAILED WHILE INSTALLED IN A TELEPAR. OUTPUT WAS NON-LINEAR. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE DIFFERENTIAL AMPLIFIER BEING ADJUSTED TO 3 VOLTS DC IN THE SATURATED CONDITION (BEYOND ITS MAXIMUM VOLTAGE GAIN CAPABILITY).						
CORRECTIVE ACTION-CAUTION NOTES WERE ADDED TO PROCEDURE 27-28338 REV. 5, SPECIFYING PRECISE DIFFERENTIAL AMPLIFIER GAIN ADJUSTMENT PROCEDURES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-49-24-4595-F OSCILLATOR	FAR 27-12571-913	5C 031115	FACTORY	YES NO	BENDIX 1036900-801
FAILURE MODE-OUT OF TOLERANCE. CHANNEL OSCILLATOR WAS REPORTED OPERATING 20 PERCENT FBW FROM THE BAND EDGE. BAND EDGE PLUS OR MINUS 10 PERCENT FBW IS EXPECTED. FAILURE CONFIRMED BUT CAUSE OF FAILURE NOT DETERMINED.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A493-0080/P8-WO-08-OACE TLM CANISTER	COMPOSITE-FRD/DPL	1880 031114	ETR-38A	YES NO	
FAILURE MODE-FAIL DURING OPERATION. NO COMPUTATION ON RF 1-COMMUNAL 18.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						

GENERAL DYNAMICS
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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-MONE.						
CORRECTIVE ACTION-CANISTER WAS REPLACED. INSUFFICIENT INFORMATION TO DETERMINE EXACT NATURE OF FAILURE.						
INSTRUMENTATION-A/B	9LV-99-24-4334-F	FAR	031114	FACTORY	YES	APPLIED COMPO
TELEMETRY SET AND TRANSDUC	ELECTRICAL FILTER, INDUCTOR	27-01299-1			NO	ENT
ERS						AC13030-1
FAILURE MODE-OUT OF SPECIFICATION. BANDPASS FILTER FAILED WHILE INSTALLED IN A LIMITER FILTER WHEN OUTPUT WAS LOW. FAILURE WAS CONFIRMED AND WAS APPARENTLY CAUSED BY RELAXATION OF THE INDUCTOR LAMINATIONS, RESULTING IN A CHANGE IN THE RESONANT FREQUENCY. N/A 27-12287-3 LIMITER FILTER.						
CORRECTIVE ACTION-VENDOR INDICATED ALL FUTURE BANDPASS FILTERS OF THIS PART NUMBER WILL BE INCLOSED IN METAL CONTAINERS. THIS METHOD WILL PREVENT CHANGES IN INTERNAL POTENTIAL PRESSURES DUE TO RELAXATION OF THE CASE.						
INSTRUMENTATION-A/B	LV-99-24-4303-C	FAR	031114	SAN DIEGO	YES	HERMETIC
TELEMETRY SET AND TRANSDUC	ELECTRICAL FILTER	27-01299-1		O	NO	954-2143-400
ERS						
FAILURE MODE-OUT OF SPECIFICATION. BANDPASS FILTER FAILED WHEN THE OUTPUT WAS FOUND TO BE 11 DECIBELS BELOW PEAK RESPONSE. SPECIFICATIONS REQUIRE A MINIMUM OF 15 DECIBELS BELOW PEAK. FAILURE ANALYSIS WAS WAIVED PER TWA 03-61-006.						
CORRECTIVE ACTION-MONE.						
INSTRUMENTATION-A/B	LV-99-24-4314	FAR	031113	FACTORY	YES	BENDIX
TELEMETRY SET AND TRANSDUC	TRANSMITTER	27-01272-13			NO	1032080-12-2-A
ERS						
FAILURE MODE-OUT OF TOLERANCE. TRANSMITTER, WHILE INSTALLED IN A TELEPAK, FAILED WHEN THE OUTPUT FROM THE RADIO FREQUENCY AMPLIFIER WAS FOUND TO BE ONLY 3.25 WATTS INSTEAD OF THE REQUIRED MINIMUM OF 4.8 WATTS. FAILURE WAS NOT CONFIRMED.						
CORRECTIVE ACTION-MONE. FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B	LV-99-24-4308-F	FAR	2160	FACTORY	YES	BENDIX
TELEMETRY SET AND TRANSDUC	AMPLIFIER		031113		YES	1031268
ERS						
FAILURE MODE-OUT OF TOLERANCE. CHANNEL COULD NOT BE BROUGHT INTO TOLERANCE, WHEN INSTALLED IN TELEPAK 27-11941-933						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PR1 OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-FAILURE NOT CONFIRMED AT AMPLIFIER LEVEL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4381-F TLN CANISTER-AMPLIFIER	COMPOSITE-FACTORY 83113 87-11941-033	2100 83113	FACTORY	YES NO	801X NO 1096370
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 11 OF ASSOCIATED TELEMETRY DISPLAYED EXCESSIVE NOISE. FAILURE CONFIRMED. CAU SE- HARMONIC PICKUP FROM THE CHANNEL E MULTIVIBRATOR.						
CORRECTIVE ACTION-ENGINEERING IS INVESTIGATING THE POSSIBILITY OF ADDING A HIGH BAND PASS FILTER TO CHANNEL E CIRCU ITRY TO CORRECT THIS PROBLEM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-2040.1 A-49-24-4224-F PRESSURE TRANSDUCER	UTP-PRY 89-01003-31	83113	60/C	NO NO	BOURNS NO 2007371703
FAILURE MODE-OUT OF SPECIFICATION. DURING THE CALIBRATION PORTION OF PROOF CYCLE 8 AT 16 PSIA, THE MAXIMUM ERROR WA S 1.067 PERCENT. SPECIFICATION IS 1.0 PERCENT.						
CORRECTIVE ACTION-NONE. THIS UNIT IS NOT OUT OF TOLERANCE. THE SPECIFICATION IS 1.0 PERCENT NOT 1.000 PERCENT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-49-24-4224-F TRANSMITTER	FAR 87-18039-1	SE 83113	FACTORY	YES NO	
FAILURE MODE-OUT OF TOLERANCE. THE TRANSMITTING SET WAS REJECTED WHEN CHANNEL A HAD CROSS-COUPPLING BETWEEN A AND C WHEN C WAS AT 5 VOLTS DC AND WHEN E WAS AT ZERO VOLTS. ALSO, CHANNELS A AND E INDICATED CROSS-COUPPLING. THE FAILURE WAS DUE TO THE HIGH AC DEVIATIONS OF CHANNELS C AND E. THE CAUSE FOR THE HIGH DEVIATIONS WAS NOT DETERMINED. THERE A RE TWO POSSIBLE CAUSES. 1. THE DEVIATIONS SHIFTED AFTER BEING SET UP WHEN THE PACKAGE WAS TESTED BEFORE INSTALLATION ON THE MISSILE OR 2. THE TEST SET WAS NOT IN CALIBRATION AT THE TIME OF PACKAGE TEST.						
CORRECTIVE ACTION-NONE.						

GENERAL INVESTIGATIVE
DIVISION

SPECIALTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	LV-89-24-4318-F LV-89-24-4318-F POWER SUPPLY	FAR 89-13840-8	83111	FACTORY	YES NO	
<p>FAILURE MODE-OPEN (ELECT). TRANSDUCER POWER SUPPLY FAILED DURING VIBRATION TESTING WHEN THE OUTPUT WAS ERRATIC. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A BROKEN LEAD TO THE L-1 INPUT FILTER. THE BROKEN LEAD WAS CAUSED BY VIBRATION.</p> <p>CORRECTIVE ACTION-REQUESTED DESIGN AND ASSEMBLY PERSONNEL TO INVESTIGATE THE DESIGN AND ASSEMBLY OF THESE COMPONENTS TO ASSURE THAT PRINTS AND PROCEDURES ARE ADEQUATE TO PREVENT UNSUPPORTED COMPONENTS FROM BEING SUBJECTED TO UNOUE VIBRATORY STRESSES.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR BRUSHES ERS	A-49-24-4280 TELEMETRY SET AND TRANSDUC COMMUTATOR BRUSHES	FAR 27-12908-3	SE 831108	FACTORY	YES NO	YES BENDIX NO 1096485
<p>FAILURE: MODE-CONTAMINATION LEADING TO ERRATIC OPERATION. UNIT WAS REPORTED TO OPERATE INTERMITTENTLY. FAILURE CONFIRMED. EXCESSIVE MOTOR BRUSH CARBON CONTAMINATING THE GOVERNOR CONTACTS OF THE GEAR TRAIN.</p> <p>CORRECTIVE ACTION-A RECOMMENDATION WAS SENT TO VENDOR TO USE A MORE RELIABLE MOTOR. VENDOR REPLY NOT AVAILABLE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	89-2040-1 TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	UTP-PST 69-01003-31	831109	SD/C	NO NO	BOURNS 2007371703
<p>FAILURE MODE-OUT OF SPECIFICATION. ONE PRESSURE STEP BETWEEN 41 AND 45 PSIA EXCEEDED THE RESOLUTION TOLERANCE OF 0.5 PERCENT.</p> <p>CORRECTIVE ACTION-NONE. AFTER CONSIDERING THE EQUIPMENT ERROR, THE STEP WAS NOT CONSIDERED OUT OF TOLERANCE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTALLATION ELECTRONIC ERS	A-99-24-4288-F TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTALLATION ELECTRONIC C TUBE	FAR 7-01781-9	831108	SAN DIEGO	YES NO	BOURNS 71724-0-33-752
<p>FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. TWO TRANSDUCERS FOR MEASUREMENT H140P WERE OUT OF CALIBRATION. THE FAILURE OF ONE TRANSDUCER WAS NOT CONFIRMED. BOTH FAILURES OCCURRED BECAUSE THE PARTS HAD BEEN IN STORAGE WITHOUT AN EXERCISING OF THEIR BOURNOM TUBES IN TWO YEARS. FROM THE ANALYSIS TEST RESULTS THE GENERAL TREND OF THE PERCENTAGE ERROR KEPT DROPPING AS THE TRANSDUCERS WERE EXERCISED. BOURNOM TUBES CHARACTERISTICALLY ARE KNOWN FOR THEIR MYSTERY AND THE FACT THEY TEND TO TAKE A SET IF THEY ARE DOMINANT. A BOURNOM TUBE THAT HAD BEEN IN STORAGE FOR TWO YEARS SHOULD BE EXERCISED APPROXIMATELY TEN TIMES BEFORE USING OR CALIBRATION TESTING.</p>						

GENERAL - AMMICS
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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
SWI-SYSTEM							001000
CORRECTIVE ACTION-NONE. TRANSDUCERS OF THIS PART NUMBER ARE REQUIRED TO OPERATE WITHIN SPECIFICATIONS EVEN AFTER LONG INACTIVITY, INDICATING DEFICIENT BOURDON TUBES IN THE PRESENT ANALYSIS. SINCE THE MANUFACTURE OF THESE PARTICULAR UNITS, HOWEVER, THE VENDOR HAS INITIATED QUALITY CONTROL AND MANUFACTURING IMPROVEMENTS TO ELIMINATE THIS FAILURE MODE.							
INSTRUMENTATION-A/B	FAR-A-49-24-4276 TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS	FAN 7-01720-3	SE 031107	FACTORY	NO	BOURNS NO 73511-0-10-752	000023
FAILURE MODE-ELECTRICAL OPEN. THE TRANSDUCER (MEASUREMENT P27P) FAILED WHEN THE WIPER ARM ELEMENT WAS FOUND OPEN UNDER AMBIENT TEMPERATURE. FAILURE WAS CAUSED BY EXCESSIVE CURRENT TO THE MANOREL AND WIPER ARM, CAUSING THE MANOREL WINDING TO MELT.							
CORRECTIVE ACTION-RECOMMENDED FACTORY PERSONNEL BE ADVISED OF THE FAILURE AND ACTION BE TAKEN TO ASSURE EXCESSIVE CURRENT IS NOT APPLIED TO THE TRANSDUCER DURING TESTING PROCEDURES.							
INSTRUMENTATION-A/B	LV-99-24-4307-F TELEMETRY SET AND TRANSDUC CALIBRATOR	FAR 58-13937-007	031107	FACTORY	YES	BENDIX-PACIFIC NO 1047397	001012
FAILURE MODE-OUT OF TOLERANCE. CALIBRATOR FAILED WHEN THE NEGATIVE PEDestal VOLTAGE COULD NOT BE ADJUSTED TO WITHIN SPECIFICATIONS. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A DEFECTIVE DESIGN OF THE A-7 POTENTIOMETER. THE WIPER ARM IS COMING IN CONTACT WITH THE SOLDER PAD.							
CORRECTIVE ACTION-REQUESTED BENDIX-PACIFIC NOTIFY THE POTENTIOMETER MANUFACTURER TO OBTAIN CORRECTIVE ACTION.							
INSTRUMENTATION-A/B	LV-99-24-4287-F TELEMETRY SET AND TRANSDUC DEMODULATOR-TRANSFORMER	FAR 27-01894-1	031106	FACTORY	YES	AC ELECTRONICS NO 27-01894-1	000001
FAILURE MODE-SHORTCIRCUIT. THE CHANNEL UTILIZING THIS PART HAD LOW GAIN. FAILURE CONFIRMED. THE FAILURE WAS DUE TO A SHORTED INTERWINDING OF THE PRIMARY BETWEEN TERMINALS 1 AND 2.							
CORRECTIVE ACTION-NONE. REASON FOR THE INTERWINDING SHORT COULD NOT BE DETERMINED.							

GENERAL DYNAMICS
CONVAIR DIVISION

10 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIF DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE DIF	TIME DIF	OTH	VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ELECTRICAL CONNECTOR ERS	A-99-24-4324	PAR	631104	FACTORY	YES MICRODOT NO P92-213	691878
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. TELEMETRY PACKAGE INDICATED NO POWER OUTPUT WHEN A MINIMUM OF 3.0 WATTS IS REQUIRED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A POORLY FABRICATED COAXIAL CABLE CONNECTOR P-48.						
CORRECTIVE ACTION-REQUESTED VENDOR OF TELEMETRY PACKAGE, TEXAS INSTRUMENTS, TO IMPROVE RECEIVING INSPECTION, AND TO NOTIFY MANUFACTURER OF THE CONNECTOR, MICRODOT, OF THE FAILURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	M2-A9-24-4210-F	PAR 27-12782-803	2470 631104	FACTORY	YES NO	692668
FAILURE MODE-OUT OF TOLERANCE. THE TELEMETRY PACKAGE WAS REJECTED WHEN THE COMMUTATOR SPEEDS FOR CHANNELS 13, A, AM O E, WERE ALOW. THE FAILURE WAS DUE TO DRIFT IN THE ELECTRICAL MECHANICAL PARAMETERS OF THE COMMUTATOR. THIS PARAMET ER SHIFT COULD BE CAUSED BY BEARINGS, COMMUTATOR WIPER, GEARS, AND BREAKING-IN DURING OPERATION.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-POTENTIOMETER ERS	M2-A9-24-4211-F	PAR 27-12782-803	2470 631104	FACTORY	YES SENDIN NO	692667
FAILURE MODE-ELECTRICAL OPEN. CHANNEL 13 OF THE TELEMETRY PACKAGE BECAME VERY WEAR, APPEARING TO BE INVERTED AND RU NNING AT TWICE ITS EXPECTED FREQUENCY. FAILURE WAS CAUSED BY AN OPEN WINDING IN THE POTENTIOMETER OF THE SUBCARRIER OSCILLATOR.						
CORRECTIVE ACTION-SENDIN-PACIFIC ENGINEERING WORKED WITH MINELCO ENGINEERING IN IMPROVING THE POTENTIOMETER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	A-99-24-4324-F	PAR 7-01649-13	2470 631104	SAN DIEG	YES ROSEMOUNT NO 13ACF	
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. THE OUTPUT SIGNAL CAUSED TELEMETRY CHANNEL 13, SEGMENT 39, TO INDIC ATE LESS THAN ZERO PERCENT INFORMATION BANDWIDTH WHEN GREATER THAN 100 PERCENT WAS EXPECTED. THE RESISTANCE OF THE T RANSDUCER BETWEEN PINS A AND B WAS 800 OHMS WHEN APPROXIMATELY 1870 OHMS WAS EXPECTED. FAILURE WAS ATTRIBUTED TO THE TRANSDUCER SHORTING TO CASE GROUND, HOWEVER, THE EXACT CAUSE COULD NOT BE FOUND.						

GENERAL DYNAMICS
CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI VENDOR PART NO	
						002106
	CORRECTIVE ACTION-VENDOR WAS REQUESTED TO TAKE NECESSARY ACTION TO ASSURE HIGHER QUALITY WIRE JOINTS IN THE TRANSDUCER CASE, AND GENERAL IMPROVEMENT IN TRANSDUCER QUALITY TO PREVENT ELEMENT SHORTS.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER ERR	CT-88-24-279-C CT-88-24-279-C	FAR 88-01178-1	1860 031102	ETR36A NO	NO KISTLER NO 302-SM PLUS OR MINUS .5-2-1	001366
FAILURE MODE-OUT OF TOLERANCE. THIS ACCELEROMETER REPORTEDLY FAILED WHEN IT WAS FOUND EXCESSIVELY NOISY. TELETYPE MESSAGE 800 033-038 112A, DATED DECEMBER 2, 1983, STATES THE ACCELEROMETER WAS FOUND ACCEPTABLE FOR FLIGHT BY SITE ENGINEERING PERSONNEL AT ETR. THE FAILURE ANALYSIS IS CANCELED.						
	CORRECTIVE ACTION-FAILURE NOT CONFIRMED. SINCE THE PART WILL NOT BE RECEIVED FOR FAILURE ANALYSIS, THIS ANALYSIS IS CANCELED.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR TRANSISTOR ERR	LY-99-24-4273-F LY-99-24-4273-F	FAR 7-12222-3	031102	FACTORY	YES NO	001353
FAILURE MODE-OUT OF TOLERANCE. OUTPUT WAS ERRATIC, NOT SEQUENTIALLY POSITIVE AND NEGATIVE AS REQUIRED. FAILURE CONFIRMED. CAUSE-LOW CURRENT GAIN CHARACTERISTIC OF TRANSISTOR 9-4 (2N327A).						
	CORRECTIVE ACTION-TRANSISTORS TYPE 2N327A WERE REPLACED WITH TYPE 2N328A HAVING A HIGHER CURRENT GAIN CHARACTERISTIC.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONVERTER ERR	A-99-24-4370-F A-99-24-4370-F	FAR 27-12370-803	031101	FACTORY	YES NO	003304
FAILURE MODE-SHORTCIRCUIT. THREE AC-DC CONVERTERS FAILED WHEN THEY COULD NOT BE ADJUSTED TO 0 TO 5 VOLTS DC WITH A 800 TO 750 CPS SIGNAL APPLIED. OUTPUT WAS A CONSTANT 10.5 VOLTS DC. FAILURES WERE CONFIRMED AND ATTRIBUTED TO THE 20 VOLT DC 8 PLUS BEING SHORTED TO GROUND IN THE TOP PACKAGE.						
CORRECTIVE ACTION-RECOMMENDED THAT THE TEST GROUP SUPERVISION EMPHASIZE THE NEED FOR EXTREME CAUTION IN HANDLING UNITS DURING TESTING TO AVOID REPETITION OF THIS MODE OF FAILURE.						

GENERAL - MANICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ELECTRICAL REGULATOR ERS	A-98-24-4371-F	FAR 27-12408-1	031101	FACTORY	YES NO		099803
FAILURE MODE-SHORT(ELECT). THE REGULATOR ASSEMBLY FAILED DURING PRE-PRODUCTION TESTING WHEN NO OUTPUT WAS OBTAINED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE 28 VOLT DC 8 PLUS BEING SHORTED TO GROUND IN THE TOP PACKAGE.							
CORRECTIVE ACTION-RECOMMENDED THAT THE TEST GROUP SUPERVISION EMPHASIZE THE NEED FOR EXTREME CAUTION IN HANDLING UN ITS DURING TESTING TO AVOID REPETITION OF THIS MODE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LV-98-24-4246-F	FAR 27-11841-933	031101	FACTORY	YES NO	YES BENDIX NO 27-11241-933	099827
FAILURE MODE-FAIL DURING OPERATION. CHANNEL 11 INDICATOR 9 TO 6 PERCENT 1BW NOISE. FAILURE CONFIRMED. CAUSED BY IMO UCTIVE PICKUP FROM THE SQUARE WAVE, 900 CYCLE OUTPUT OF THE CH. E OSCILLATOR.							
CORRECTIVE ACTION-THE 27-11241 PACKAGE IS BEING PHASED OUT. ITS COUNTERPART 25-15937 USED ON CENTAUR BOOSTERS WILL BE EQUIPPED WITH BAND PASS FILTERS TO ALLEVIATE THIS PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	A-98-24-4240F	FAR 7-01723-11	031101	FACTORY	YES NO	YES BOURNS NO 42013-0-30-732	091609
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER ERROR BAND WAS PLUS 1.75 PERCENT WHEN PLUS OR MINUS 1.0 PERCENT IS ALLOWE O. FAILURE WAS CAUSED BY OVERPRESSURIZATION RESULTING IN A CHANGE IN THE BELLONS SPRING RATE AND INCREASED TRAVEL. T HE EVENT RESPONSIBLE FOR THE OVERPRESSURIZATION COULD NOT BE DETERMINED; HOWEVER, IT WAS POSSIBLE THAT IT MAY HAVE B EEN DONE DURING CLEANING OF THE TRANSDUCER.							
CORRECTIVE ACTION-CAUTIONED TRANSDUCER CLEANING PERSONNEL TO EXERCISE CARE WHEN CLEANING LOW-RANGE PRESSURE TRANSDU CERS AND NOT TO APPLY EXCESSIVE PRESSURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR/GEAR ERS	LV-98-24-4294F	FAR	031101	FACTORY	YES NO	YES BENDIX NO 1996493	
FAILURE MODE-FAIL DURING OPERATION. GEAR MOTOR FAILED TO OPERATE. THE FAILURE WAS CONFIRMED. CAUSE WAS FAULTY GEAR TRAINS DUE TO EXCESSIVE SCRATCHING AND WEARING OF INTERNAL PARTS. THREE UNITS WERE CHECKED UNDER THIS F.A.R. ALL THR EE FAILED FOR THE SAME REASONS AND ALL THREE FAILURES WERE CONFIRMED.							

GENERAL MANICS
CONVAIR .1810N

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-NONE. REPLACEMENT OF HEAVYWEIGHT COMMUTATORS WITH LIGHTWEIGHT UNITS WAS NOT ECONOMICALLY JUSTIFIED. REF. AVO TO N.O. STORY FROM M.J. MALONEY DATED 8 MARCH 1964.						001444
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTOR-POTENTIOMETER ERS	8LV-98-24-4377-F	FAR 89-11118-1	891101	FACTORY	YES	SPECTROL MO	001866
FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE COULD NOT BE ADJUSTED TO 8.0 PLUS OR MINUS 0.005 VDC SPECIFICATION FAILURE CAUSED BY FAULTY POTENTIOMETER R-6.							
CORRECTIVE ACTION-POTENTIOMETER MADE INACTIVE FOR FUTURE DESIGN AND IS NO LONGER BEING PURCHASED DUE TO EXCESSIVE FAILURE RATE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	8P-A9-24-4203-F	FAR 87-11541-933	2160 891100	FACTORY	YES	BENDIX MO 1049830-3	003080
FAILURE MODE-DRIFT. THE TELEMETRY CANISTER CHANNEL-15 OUTPUT FREQUENCY WAS 3 PERCENT BELOW THE HIGH-AND LOW-FREQUENCY TOLERANCE BAND LIMITS. THE FAILURE WAS CAUSED BY DRIFT IN OUTPUT CAUSED BY AN INADEQUATE BURN IN TEST.							
CORRECTIVE ACTION-THE FAILED CHANNEL-15 OSCILLATOR DRIFTED OUTSIDE THE TOLERANCE BAND IN A MANNER SIMILAR TO MANY OTHER OSCILLATORS. THIS RESULTED IN A NEW BURN-IN PROCEDURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR TRANSFORMER ERS	LV-99-24-4372-F	FAR 7-18077-801	831031	FACTORY	YES	MO	003805
FAILURE MODE-OPEN(ELECT). DEMODULATOR ASSEMBLY FAILED DURING ELECTRICAL TESTING AFTER POTTING. THE PRIMARY CIRCUIT OF TRANSFORMER T-1 WAS OPEN. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A LACK OF SOLDER ON TERMINAL 1 OF TRANSFORMER T-1. CONSEQUENTLY, THE LEAD FROM THE PRIMARY WINDING WAS NOT CONNECTED TO TERMINAL 1.							
CORRECTIVE ACTION-REQUESTED MANUFACTURING DEPARTMENT TO IMPROVE QUALITY CONTROL OF THE MANUFACTURING PROCESS.							

GENERAL 1 AICS
CONVAIR DIVISION

18 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR POTENTIOMETER ERS	LV-99-24-4229-F LV-99-24-4310-F	FAR 27-11941-933	931031	FACTORY	YES	BENDIX NO	991909
FAILURE MODE-FAIL DURING OPERATION. CHANNEL NO.13 INDICATED 7 PCT 18W NOISE. FAILURE WAS CONFIRMED AND ATTRIBUTED TO AN ARCING DEVIATION POTENTIOMETER WITHIN THE CHANNEL 6 OSCILLATOR.							
CORRECTIVE ACTION-CHANNEL 6 OSCILLATOR WAS REPLACED CORRECTING CHANNEL 11 NOISE PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR ERS	LV-99-24-4310-F	FAR 27-13666-825	931031	SAN DIEG	YES	BENDIX-PACIFIC NO 1047397	991909
FAILURE MODE-ERRATIC OPERATION. CALIBRATOR FAILED WHEN IT INDICATED AN INTERMITTENT CHANNEL 6 NEGATIVE PEDESTAL VOLTAGE. FAILURE COULD NOT BE CONFIRMED.							
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER ERS	LV-99-24-4291-F	FAR 27-01241-1	931031	FACTORY	YES	MAYBERRY NO 114-9	991060
FAILURE MODE-CONTAMINATION. 7-8 PERCENT NOISE WAS INDICATED ON CHANNEL 12 OF ASSOCIATED TELPAR. FAILURE WAS CONFIRMED. CAUSE WAS BREAKDOWN OF GOLD PLATING ON ITS ELECTRICAL CONNECTOR DUE TO CORROSION.							
CORRECTIVE ACTION-MAYBERRY WILL IMPROVE PACKAGING TO PREVENT PIN CONTACT WITH ATMOSPHERE. GOLD PLATING OF PINS WILL BE INCREASED FROM 30 TO 100 MICRO INCH.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR TRANSFORMER ERS	A-99-24-4166-F	FAR 27-12591-5	931030	FACTORY	YES	NO	994001
FAILURE MODE-ELECTRICAL OPEN. OUTPUT COULD NOT BE ADJUSTED TO 0.0 VDC. DUE TO OPEN LEAD IN THE PRIMARY OF T-1. (REFERENCE PHASE TRANSFORMER).							
CORRECTIVE ACTION-NONE. PRECISE REASON FOR THE OPEN WIRE COULD NOT BE DETERMINED.							

GENERAL DYNAMICS
CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PR1 OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMUTATOR MOTOR-SPRING ERS	SP-49-24-4186-F SP-49-24-4186-F	FAR 27-11841-933	2180 031030	FACTORY	YES	BENDIX NO	001322
FAILURE MODE-STRUCTURAL. THE TELEMETRY PACKAGE FAILED WHEN THE CHANNEL-E COMUTATOR OPERATED INTERMITTENTLY. THE FA ILURE WAS CAUSED BY A DEFORMED COMUTATOR MOTOR BRUSH SPRING BINDING ON THE MOTOR CASE.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMUTATOR ERS	SP-99-24-4200-F SP-99-24-4200-F	FAR 27-11841-933	2180 031030	FACTORY	YES	BENDIX NO 1045630-5	001321
FAILURE MODE-CONTAMINATION. THE TELEMETRY CANISTER WAS REJECTED WHEN THE CHANNEL-11 OUTPUT HAD NOISE ON 5 TO 8 PERC ENT OF THE INFORMATION BANDWIDTH. THE SPECIFICATION ALLOWS A MAXIMUM OF 5 PERCENT NOISE. THE 2.5 CPS COMUTATOR SECH EMENTS WERE DIRTY, CAUSING THE NOISE IN THE CHANNEL-11 OUTPUT. DURING FAILURE ANALYSIS A BROKEN BRUSH IN THE COMUTATO R CAUSED THE OUTPUT FROM CHANNEL-15 TO CEASE. ALSO, NOISE ON CHANNEL-14 WAS CAUSED BY THE DIRTY COMUTATOR.							
CORRECTIVE ACTION-MEMO 949-3-84-10 PROPOSES TO ELIMINATE EXCESSIVE CHANNEL-11 NOISE CAUSED BY HIGHER HARMONICS FEED ING THROUGH THE CHANNEL-E SUBCARRIER OSCILLATOR. THE CONTROLLING DESIGN GROUP APPROVED BANDPASS FILTERS FOR THIS PUR POSE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	68-2040-1 LV-99-24-4830-F	UTP-PAT 69-01003-31	031029	60/C	NO	BURNS NO 2007371703	002349
FAILURE MODE-OUT OF SPECIFICATION. MAXIMUM ERROR AT 400 AND 380 PSIA WERE MINUS 1.014 AND MINUS 1.049 RESPECTIVELY. TOLERANCE IS MINUS 1.0 PERCENT.							
CORRECTIVE ACTION-THIS UNIT WAS NOT OUT OF SPECIFICATION. THE SPECIFICATION IS NOT 1.000 PERCENT BUT IS 1.0 PERCENT							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BANDPASS FILTER CAPACITOR ERS	LV-99-24-4830-F LV-99-24-4830-F	FAR 27-01289-1	031029	FACTORY	YES	APPLIED COMPO NO ENTS AC13030-1	
FAILURE MODE-OUT OF TOLERANCE. OUTPUT OF FILTER WAS 0.384VAC, 0.077 TO 0.13 VAC WAS EXPECTED. FAILURE NOT CONFIRME D BECAUSE WHEN DISASSEMBLED, ONE OF THE INDUCTORS WAS FOUND DEFORMED WITH A HOLE BURNED IN ONE OF ITS CAPACITORS.							

GENERAL DYNAMICS
CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM[®] LABORING

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIT DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTM	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE. DATA TO THE BANDPASS FILTER WAS SUSTAINED PRIOR TO FAILURE ANALYSIS. A VALID ANALYSIS COULD NOT BE MADE.						
INSTRUMENTATION-A-2 TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERR	000166 AAS-0045/PI-B08-00-136 AAS-0045/PI-B08-00-136 TELEMETRY SET AND TRANSDUCER COMMUNICATOR MOTOR ERR	UTP-00A-7PPT 09-01001-83	031020		YES NO	YES NO
FAILURE MODE-OUT OF TOLERANCE. A FAILURE WAS REPORTED WHEN THE OBSERVED ERROR BAND WAS PLUS 0.14 AND MINUS 0.99 PER CENT. ALLOWABLE IS PLUS OR MINUS 0.75 PERCENT. THE UNIT WAS RETESTED AND THE OBSERVED ERROR BAND WAS PLUS 0 AND MINUS 0.08 PERCENT. THE READOUT ACCURACY WAS 0.87 PERCENT.						
CORRECTIVE ACTION-NONE. THE OUT OF SPECIFICATION WAS CONSIDERED MINOR.						
INSTRUMENTATION-A-2 TELEMETRY SET AND TRANSDUCER COMMUNICATOR MOTOR ERR	AAS-0045/PI-B08-00-136 AAS-0045/PI-B08-00-136 TELEMETRY SET AND TRANSDUCER COMMUNICATOR MOTOR ERR	COUNTDOWN 130F 031020	11 -1200		YES NO	YES NO
FAILURE MODE-FAIL DURING OPERATION. THE 9RP8 COMMUNICATOR MOTOR FOR CHANNEL 12 OF RPS STOPPED OPERATING DURING THE COUNTDOWN.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. DATA FROM ALL NINE MEASUREMENTS ON REF CHANNEL 12 WAS LOST THROUGHOUT FLIGHT.						
VEHICLE EFFECT-NONE						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A-2 TELEMETRY SET AND TRANSDUCER OSCILLATOR/TUBE ERR	LV-8V-84-2843-P LV-8V-84-2843-P TELEMETRY SET AND TRANSDUCER OSCILLATOR/TUBE ERR	FAR 031020		FACTORY	YES NO	YES NO
FAILURE MODE-OUT OF SPECIFICATION. OSCILLATOR WOULD NOT ADJUST TO REQUIRED FREQUENCY. FAILURE CONFIRMED. CAUSED BY CHANGE OF OSCILLATOR TUBE (TYPE 8111) OPERATING CHARACTERISTICS.						
CORRECTIVE ACTION-NONE. UNIT WITHIN WHICH THIS OSCILLATOR IS INSTALLED HAS SINCE BEEN MAINTAINED FROM FAILURE ANALYSIS.						

GENERAL DYNAMICS
COMMUNICATION DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM		TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
SUB-SYSTEM		FAILED COMPONENT NAME	PART NUMBER	DATE DIP	TIME DIP	OTH	VENDOR PART NO
INSTRUMENTATION-A/B		LV-88-24-4177-P	FAR	8160	FACTORY	YES	BENDIX
TELEMETRY SET AND TRANSDUC		COMMUNICATOR	87-11941-993	931025		NO	1045830-9
<p>FAILURE MODE-CONTAMINATION. THE TELEPAR FAILED WHEN CHANNEL 18 WAS OUT OF SPEC. CHANNEL 18 OUTPUT WAS LOW, AND CHANNEL 14 HAD SPIKING. THE SPIKING WAS CAUSED BY CONTAMINATION OF THE COMMUNICATOR SEGMENTS WITH CONDUCTING CARBON RESIDUE FROM THE COMMUNICATOR BRUSHES. THE CHANNEL 18 AND 16 FAILURES WERE ISOLATED TO THE VIDEO AMPLIFIER, BUT FAILURE ANALYSIS COULD NOT CONFIRM THE FAILURE.</p>							
<p>CORRECTIVE ACTION-THE SPIKING PROBLEM ASSOCIATED WITH THE OUTPUT OF CHANNEL 14 WAS CORRECTED BY CLEANING THE COMMUNICATOR.</p>							
INSTRUMENTATION-A/B		LV-88-24-4841-F	FAR	631025	FACTORY	YES	BURNS
TELEMETRY SET AND TRANSDUC		INSTRUMENTATION	7-01723-13			NO	42012-0-100-75
<p>FAILURE MODE-EXTERNAL LEAK. TRANSDUCER INDICATED A STATIC ERROR BAND OF -1.25 PERCENT WHEN PLUS OR MINUS 1.0 PERCENT WAS EXPECTED. FAILURE WAS ATTRIBUTED TO LOSS OF INTERNAL REFERENCE PRESSURE. LEAKAGE FROM THE AMBIENT AREA INTO THE CASE RAISED THE REFERENCE PRESSURE RESULTING IN LOWER TRANSDUCER OUTPUT.</p>							
<p>CORRECTIVE ACTION-NONE, SINCE THE LOCATION OF THE LEAKAGE INTO THE TRANSDUCER CASE COULD NOT BE FOUND.</p>							
INSTRUMENTATION-A/B		LV-88-24-4223-F	FAR	631025	FACTORY	YES	BENDIX
TELEMETRY SET AND TRANSDUC		R.F. AMPLIFIER WIRING	87-01812-1			NO	1077064-3A
<p>FAILURE MODE-ELECTRICAL OPEN. CHANNELS 1,2,3, 5,7 AND 6 DEVELOPED NOISE DURING VIBRATION TESTING. FAILURE CONFIRMED. CAUSE-INTERMITTENT SOLDER CONNECTION BETWEEN R-1 AND C-3.</p>							
<p>CORRECTIVE ACTION-BENDIX WAS REQUESTED TO REVIEW ALL TECHNIQUES ASSOCIATED WITH THIS PART TO ELIMINATE A RECURRENCE OF THIS TYPE PROBLEM.</p>							
INSTRUMENTATION-A/B		A-88-24-4229-F	FAR	631025	FACTORY	YES	CALMAS
TELEMETRY SET AND TRANSDUC		CRYSTAL RECTIFIER-TRANSFORMER	87-01379-1			NO	34C948
<p>FAILURE MODE-ELECTRICAL OPEN. UNIT WAS REPORTED TO HAVE INTERMITTENT PRIMARY. FAILURE CONFIRMED. CAUSE WAS BROKEN WIRE AT BASE OF T-8.</p>							

GENERAL DYNAMICS
CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE	SITE TIME	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-SINCE THE MOST LIKELY REASON FOR THE FAILURE WAS STRESS ON THE TERMINAL DURING THE POTTING PROCESS 3. THE VENDOR WAS NOTIFIED OF FAILURE MODE. VENDORS REPLY WAS THAT FORMERLY TERMINAL BOARDS WERE SOLDERED PRIOR TO BE ING FASTENED DOWN. /THIS COULD BE POSSIBLE CAUSE OF FAILURE/ EFFECTIVE FEB. 9, 1964, ALL TERMINAL BOARDS WILL BE PA STENED PRIOR TO CONNECTING LEADS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSOUCKER ERS	60493-1077/L3-401-00-224	FLIGHT	2240 631023	PALC 2-3 32	YES NO	
FAILURE MODE-ERRATIC OPERATION. HEAD SUPPRESSION VALVE POSITION DATA DISPLAYED TWO OPENING EXCURSIONS BETWEEN 32.4 AND 40 SECONDS AND BETWEEN 61.0 AND 93.2 SECONDS. THIS DATA IS NOT SUPPORTED BY OTHER MEASURED PARAMETERS.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER TRANSISTOR ERS	LV-99-24-4269-F	FAR 27-01018-3	631024	FACTORY	YES NO	MAYBERRY NO 147-1
FAILURE MODE-OUT OF TOLERANCE. THE AMPLIFIERS OUTPUT DID NOT DROP TO ZERO WITH THE INPUT SHORTED. A FUNCTIONAL TEST OF THE AMPLIFIER REVEALED THE OUTPUT WAS 230 MILLIVOLTS DC WITH THE INPUT SHORTED. FAILURE WAS CAUSED BY A CHANGE I N CURRENT GAIN OF TRANSISTOR 9-4.						
CORRECTIVE ACTION-RAR LV-99-24-6126 INITIATED. VENDOR CHANGED TRANSISTORS TO TYPE 2N2280.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR ERS	LV-99-24-4238-F	FAR 7-12077-5	1350 631024	FACTORY	YES NO	
FAILURE MODE-SHORT-ELECTRICAL. PIN 19 OF CANNON CONNECTOR READ 2.2 KILOHMS WHEN AN OPEN WAS EXPECTED. FAILURE CONFIR MED, BUT THE EXACT CAUSE IS UNKNOWN. SHORT WAS LIFTED UPON DEPOTTING THE CANNON CONNECTOR AND SHORTING SUBSTANCE CO ULD NOT BE LOCATED.						
CORRECTIVE ACTION-NONE, EXACT CAUSE OF SHORT WAS NOT DETERMINED.						

GENERAL DYNAMICS
CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BANDPASS FILTER, WIRING ERS	LV-99-24-4243F	FAR 7-11233-8	831023	FACTORY	YES NO		000000
FAILURE MODE-FAIL DURING OPERATION. UNIT HAD NO OUTPUT. FAILURE CONFIRMED. CAUSED BY AN IMPROPER SOLDER CONNECTION BETWEEN CAPACITOR C-5 AND COLLECTOR OF TRANSISTOR Q-3.							
CORRECTIVE ACTION-NEW SOLDERING TECHNIQUES ARE NOW EMPLOYED AND AN ADDITIONAL INSPECTION IS NOW PERFORMED PRIOR TO INSTALLATION OF SUB COMPONENTS INTO THE FILTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC LIMITED FILTER, WIRING ERS	LV-99-24-4244-F	FAR 87-12287-3	831023	FACTORY	YES NO	ENTR	000000
FAILURE MODE-OPEN (ELECT). CHANNEL 4 HAD NO OUTPUT. FAILURE CONFIRMED. CAUSED BY LACK OF SOLDER ON A CONNECTION OF FILTER PL-9. OPEN APPARENTLY OCCURRED AFTER RECEIVING INSPECTION AND MANUFACTURING TESTING.							
CORRECTIVE ACTION-MANUFACTURER (APPLIED COMPONENTS) HAS INITIATED A CHANGE TO PRODUCTION PLANNING, TO CALL OUT AN INSPECTION OF SOLDER JOINTS BEFORE ENCAPSULATING. REF. VCAR 4247-83.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER, ELECTRICAL ERS	LV-99-24-4120-F	FAR 7-11233-8	831023	FACTORY	YES NO		000000
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT WAS OBTAINED FROM THE BANDPASS FILTER WHEN NORMAL INPUT SIGNALS WERE APPLIED.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	88-2040-1	UTP-PAT 69-01003-31	831023	60/C	NO	BOURNS	000000
FAILURE MODE-OUT OF SPECIFICATION. MORE THAN 3 PERCENT OF THE TOTAL OF STEPS EXCEED 0.85 PERCENT RESOLUTION. TOLERANCE MAXIMUM IS 18 STEPS. SIXTEEN (16) STEPS EXCEEDED 0.85 PERCENT RESOLUTION.							
CORRECTIVE ACTION-NONE. THIS IS NOT A FAILURE. IF 18 STEPS ARE EXACTLY 3 PERCENT OF THE TOTAL NUMBER OF STEPS, THEN 18 STEPS WOULD BE ONLY 3.8 PERCENT. THIS THEN WOULD FALL WITHIN THE SPEC. ALLOWABLE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	M2-89-24-4348 COMMUTATOR	PAR 89-01171-81	891028	FACTORY	YES NO	FIFTH DIMENSION M MWD-261
<p>FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR FAILED WHEN ITS SPEED WAS 2.63RPS WHEREAS 2.65 RPS IS THE MAXIMUM ALLOWED. FAILURE WAS CONFIRMED AND WAS ATTRIBUTED TO A REDUCTION IN MOTOR AND GEARING FRICTION, OCCURRING AS THE RESULT OF RUN-IN SINCE COMMUTATOR MANUFACTURE, ALLOWING THE COMMUTATOR TO RUN FAST.</p> <p>CORRECTIVE ACTION-RECOMMENDED THE VENDOR SUBJECT THE COMMUTATOR IN ITS FINAL CONFIGURATION TO 50 HOURS OF OPERATION DURING PRODUCTION TO BREAK IN THE MOTOR, GEARS, ETC.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-TUBE, ELECTRONIC ERS	8P-89-24-4197-F OSCILLATOR-TUBE, ELECTRONIC	PAR 89-13337-808	1350 831023	FACTORY	YES YES	BENDIX
<p>FAILURE MODE-OUT OF TOLERANCE. THE TELEMETRY PACKAGE FAILED WHEN CHANNELS E AND 11 HAD EXCESSIVE NOISE, CHANNEL-A WAS AS OUT OF BAND ON THE LOW FREQUENCY SIDE, AND CHANNEL-A CROSSCOUPLED INTO CHANNEL 13 WHEN DESTRUCT INHIBIT WAS PROGRAMMED. THE LOW FREQUENCY OF CHANNEL-A WAS CAUSED BY THE DRIFTING CHANNEL-A SUBCARRIER OSCILLATOR. THE CROSSCOUPLING WAS CAUSED BY LOW-SUBCARRIER DEVIATION VOLTAGE OF THE CHANNEL 13 OSCILLATOR AND THE LOW FREQUENCY OF CHANNEL-A. THE DRIFTING CHANNEL-A SUBCARRIER OSCILLATOR WAS CAUSED BY CHANGING CHARACTERISTICS OF THE MODULATOR TUBE, TYPE 8111.</p> <p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	8P-89-24-4197-F COMMUTATOR	PAR 89-13337-808	1350 831023	FACTORY	YES NO	BENDIX
<p>FAILURE MODE-CONTAMINATION. THE TELEMETRY PACKAGE FAILED WHEN CHANNELS-E AND 11 HAD EXCESSIVE NOISE. CHANNEL-A WAS OUT OF BAND ON THE LOW FREQUENCY SIDE, AND CHANNEL-A CROSSCOUPLED INTO CHANNEL 13 WHEN DESTRUCT INHIBIT WAS PROGRAMMED. THE EXCESSIVE NOISE ON CHANNELS E AND 11 WAS CAUSED BY DIRTY COMMUTATOR SEGMENTS.</p> <p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR/RESISTOR ERS	LV-89-24-4854-F OSCILLATOR/RESISTOR	PAR 7-01488-883	831023	FACTORY	YES NO	BENDIX T6E31
<p>FAILURE MODE-ERRATIC OPERATION. UNIT HAD ERRATIC OUTPUT. FAILURE CONFIRMED. CAUSE WAS CHANGE OF RESISTANCE OF R14.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUM/IR FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE. REASON FOR RESISTANCE CHANGE COULD NOT BE DETERMINED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-4330-F A-89-24-4330-F TELEMETRY SET AND TRANSDUC ERS	FAR 27-01444-3	031023	FACTORY	YES KINETICS NO M788	031022
FAILURE MODE-OUT OF TOLERANCE. DIFFERENTIAL AMPLIFIER FAILED WHEN IT WOULD NOT NULL BELOW 0.015 VOLT DC. SPECIFIED NULL IS 0.000 PLUS OR MINUS 0.003 VOLT DC. FAILURE WAS NOT CONFIRMED. CAUSE OF REPORTED FAILURE ATTRIBUTED TO A FLOATING GROUND IN THE TEST EQUIPMENT.						
CORRECTIVE ACTION-OLD TEST SET WAS REPLACED WITH A NEW TEST SET HAVING AN EARTH GROUNDING SYSTEM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-0003-1330/FC-CO-01-0308-004 TELEMETRY SET AND TRANSDUC ERS	COMPOSITE-FACTORY 1330 031022	031022	FACTORY	YES NO	031022
FAILURE MODE-ERRATIC OPERATION. CHANNELS E AND I OF TELEMETRY NO. 1 INDICATED A NOISE LEVEL OF 6 TO 7 PCT 18V, 3 PCT 18V18 ALLOWED. THE CHANNEL, A MASTER PULSE AND 100 PCT CALIBRATE PULSE, WERE FROM 1 TO 2 PCT FBW BEYOND THE LOW F REQUENCY BAND EDGE. MEASUREMENT DTV, MONITORED ON CHANNEL A, INDICATED EXCESSIVE CROSS-COUPPLING INTO CHANNEL 13 WHEN DESTRUCT INHIBIT WAS PROGRAMMED.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEMS LEVEL AND COMPOSITE TESTING REQUIRED.						
CORRECTIVE ACTION-REPLACED TELEMETRY NO. 1.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR89C2177.1 TELEMETRY SET AND TRANSDUC ERS	UTP-PRT 7-01649-8	031022	60/C	YES ROSEMOUNT NO 13446	031022
FAILURE MODE-LEAKAGE-EXTERNAL. DURING SATISFACTORY PERFORMANCE TEST THE TEST SPECIMEN LEAKED 18CC IMMEDIATELY WHILE UNDER PRESSURE OF 1000 PSIA OF GHE. THE ALLOWABLE TOLERANCE IS 2.5CC/MIN. CAUSED BY SCRATCHES IN THE O-RING SEAT WHICH WERE CAUSED BY NOT LUBRICATING THE O-RINGS DURING TEST INSTALLATION.						
CORRECTIVE ACTION-TESTING TO CONTINUE WITH REPLACEMENT UNIT. TESTING AGENCY HAS BEEN ADVISED OF THE NECESSITY OF FOLLOWING THE TEST PROCEDURE. REF-PRR-684-B-038.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CANNISTER ERS	8P-AB-84-4178-F	FAR 27-11018-023	2100 031022	FACTORY	NO NO	001091
FAILURE MODE-OUT OF SPECIFICATION. THE TELEMETRY ACCESSORY CANNISTER FAILED WHEN A SIMULATED TEMPERATURE MEASUREMENT WAS TEN PERCENT HIGHER THAN THE SIMULATED VALUE. THE ALLOWABLE TOLERANCE IS 5 PERCENT. THE CANNISTER FAILURE WAS NOT CONFIRMED. ANALYSIS SHOWED THAT THE FAILURE WAS CAUSED BY MISHANDLING OF THE SIMULATOR RESISTOR, CRACKING THE RESIS TOR LEAD.						
CORRECTIVE ACTION-PERSONNEL ENGAGED IN THE INSTALLATION OF SIMULATOR RESISTORS IN THE TELEMETRY SYSTEM WERE CAUTION ED NOT TO USE RESISTORS WITH SEVERELY BENT LEADS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR ERS	8P-AB-84-4171-F	FAR 27-11541-933	2100 031022	FACTORY	YES NO	001047
FAILURE MODE-OUT OF SPECIFICATION. THE TELEMETRY MP 1 CANNISTER FAILED WHEN THE 30 RPS MOTOR WAS CALCULATED TO BE RU NNING AT 35 RPS. FAILURE WAS CAUSED BY THE CONTACTS OF THE GOVERNOR ON THE 30 RPS MOTOR STICKING CLOSED DUE TO ARCIN G AND PITTING ON THE CONTACT SURFACE. ARCING WAS CAUSED BY MECHANICAL GRINDING OF THE SOFT BRUSHES IN THE MOTOR CAUS ING CURRENT TO FLOW IN EXCESS OF THE CONTACT RATING.						
CORRECTIVE ACTION-NONE. CORRECTIVE ACTION CONTROL CENTER IS PLANNING TO REQUEST A SURVEY OF ALL REED AND REESE MOTO RS REMAINING IN HEAVYWEIGHT TELEMETRY PACKAGES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER-O-RING ERS	PR-89C-8037.1	UTP-PRT 7-01033-8	031022	60/C	YES NO	001130
FAILURE MODE-LEAK EXTERNAL. THE SPECIMEN LEAKED 18CC IN 15 SECONDS. THE TOLERANCE IS 1.0 CC/MIN. THE O-RING SEATING SURFACE WAS SCRATCHED DUE TO NOT BEING LUBRICATED WHEN INSTALLED IN THE TEST FIXTURE.						
CORRECTIVE ACTION-LAB PERSONNEL WERE REQUESTED TO LUBRICATE THE O-RINGS PER THE TEST PROCEDURE DURING FUTURE TESTS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	PR-89C-81 8.1	UTP-PRT 7-01040-11	031022	FACTORY	YES NO	001130
FAILURE MODE-LEAK-EXTERNAL. DURING INITIAL EXAMINATION OF PRODUCT, SPECIMEN LEAKED 18 CC/MIN WHERE 8.5 CC/MIN IS AL LOWABLE. THE FAILURE WAS DUE TO A SCRATCH ON A CHAMFERED SURFACE OF THE UNIT.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTM	VENDOR NAME VENDOR PART NO
000740	CORRECTIVE ACTION-THE ALLOWABLE LEAKAGE RATE WAS RAISED TO 10 CC/MIN AND THE LEAKAGE CHECK ADDED THROUGH THE HEAD ONLY, ON EACH TEST SPECIMEN FOLLOWING COMPLETION OF TESTS.					
000743	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERR	UTP-PRT 7-D1004-23	03102R	FACTORY	YES	LEWIS NO 989306
	FAILURE MODE-LEAK-EXTERNAL. DURING EXAMINATION OF THE PRODUCT, THE SPECIMEN LEAKED 19CC IN 10 SECONDS WHEN 2.5 CC/M IN IS ALLOWABLE. THE FAILURE WAS DETERMINED TO BE CAUSED BY A SCRATCH ON THE O-RING MATING SURFACE.					
	CORRECTIVE ACTION-SD/C INSTITUTED ADDITIONAL INSTRUCTIONS TO INSURE PROPER INSTALLATION OF TRANSDUCER IN THE LEAK TEST FIXTURE. THE ALLOWABLE LEAKAGE RATE WAS RAISED TO 10 CC/MIN AND LEAKAGE CHECK ADDED THROUGH THE HEAD ONLY, ON EACH TEST SPECIMEN FOLLOWING COMPLETION OF TESTS.					
000642	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERR	AX63-0003-1580/PC-CO-02-0008-008	COMPOSITE-FACTORY	1980	YES	
	FAILURE MODE-ERRATIC OPERATION- CHANNELS 11, 15 AND 16 INDICATED EXCESSIVE COMMUTATOR SPEED VARIATIONS DUE TO A FAULTY COMMUTATOR MOTOR.					
	SYSTEM EFFECT-ERRATIC OPERATION.					
	VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND PARTIAL COMPOSITE. RETEST WAS REQUIRED.					
	CORRECTIVE ACTION-THE COMMUTATOR MOTOR WAS REPLACED.					
000647	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERR	AA63-0039/P3-403-00-187	COUNTDOWN	1970	ETR-13	YES
	FAILURE MODE-FAIL DURING OPERATION. CHANNEL 18 FAILED TO OPERATE DURING WARMUP FOR 6CT NO 2.					
	SYSTEM EFFECT-OPERATION DOES NOT START. NO INDICATION OF CHANNEL 18 SUBCARRIER OSCILLATOR WAS SEEN.					
	VEHICLE EFFECT-COUNTDOWN DELAYED 48 MINUTES.					
	CORRECTIVE ACTION-CANISTER REPLACED-1R908906.					

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERR	P1-8CO-03-136	COMPOSITE-J FACT	136F 031018	11	YES NO	097839
FAILURE MODE-OUT OF TOLERANCE. POSSIBLE SUBCARRIER OSCILLATOR SHIFT. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERR	A83-0045/P1-8CO-03-136	COMPOSITE-J FACT	136F 031018	11	YES NO	098214
FAILURE MODE-FAIL DURING OPERATION. DURING JOINT FACT THE 8 RPS COMMUTATOR MOTOR FOR CHANNELS 12 AND 13 OF RF 1 SLO WED TO 3 RPS. SYSTEM EFFECT-OPERATION TOO LOW. DATA PROCESSING WOULD HAVE BEEN DIFFICULT. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-TELEMETRY CANISTER WAS REMOVED AND REPLACED. MOTOR WAS REMOVED FROM THE FAILED CAN AND REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERR	LV-99-24-4432-F	PAR 7-01723-11	031018	SAN DIEG O	YES BOURNS NO 480130-80-732	098217
FAILURE MODE-ERRATIC OPERATION. 4 TRANSDUCERS EXHIBITED A POSITIVE SHIFT GREATER THAN THE ALLOWABLE PLUS OR MINUS 1 -0 PERCENT STATIC ERROR. ANALYSIS REVEALED NO INTERNAL DISCREPANCIES. THEREFORE, THE FAILURES WERE ATTRIBUTED TO OVE RPRESSURIZATION.						
CORRECTIVE ACTION-ENGINEERING DEPARTMENT PERFORMED A SURVEY PER MEMO 977-8-932 WHICH CALLED FOR THE PURGING OF ALL INSTALLED. IN STOCK AND SPARE UNITS (SURVEY 82-83, REVISION A). VENDOR HAS INITIATED NEW CLEANING PROCEDURES WHICH S HOULD ELIMINATE RECURRENT OF THIS FAILURE MODE. MISSILE CHECKOUT PERSONNEL WERE CAUTIONED AGAINST OVERPRESSURIZATIO N.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERR	LV-99-24-4873-F	PAR 7-01723-11	031018	FACTORY	YES BOURNS NO 480130-80-732	
FAILURE MODE-STRUCTURAL. TRANSDUCER EXHIBITED AN ERRATIC OUTPUT FAILURE WAS DUE TO A COMBINATION OF THE CASE PRESSU						

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<p>RE BEING AT ATMOSPHERIC INSTEAD OF ZERO AND THE BALL OF THE BALL-AND-SOCKET CONNECTION BEING PARTIALLY PULLED OUT OF THE SOCKET. WITH THE CASE REFERENCE PRESSURE LOST, THE VIPER ARM WAS NEAR THE END OF THE RESISTANCE MANORREL. WHEN A VACUUM WAS DRAWN TO PERFORM A CALIBRATION TEST, THE PRESSURE-BENDING BELLOW ATTEMPTED TO PULL THE VIPER ARM APPROXIMATELY ONE-THIRD FARTHER DOWN THE MANORREL. IN THIS INSTANCE THE BALL WAS PULLED OUT OF THE SOCKET. EXTENSIVE LEAK TESTS FAILED TO REVEAL THE LOCATION OF THE LEAK CAUSING THE CASE REFERENCE PRESSURE. TO BE LOST, HOWEVER, IT WAS CONCLUDED LEAKAGE OCCURRED THROUGH THE WELDED AREAS AT EACH END OF THE TRANSDUCER CASE.</p>						
<p>CORRECTIVE ACTION-VENDOR HAS ESTABLISHED A WELDING SCHOOL SO THAT WELDING PERSONNEL CAN BE TRAINED, TESTED AND CERTIFIED IN CORRECT WELDING TECHNIQUES.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	FR69C-3010.1 PRESSURE TRANSDUCER	UTP-PAT 69-01003-21	631010	FACTORY	NO	BOURNS NO 2004208306
<p>FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER OUTPUT AT AMBIENT PRESSURE WAS 26.67 PERCENT. IT SHOULD HAVE BEEN 9.8 PERCENT. THE FAILURE WAS DUE TO OVER PRESSURIZATION. THIS OCCURRED AFTER IT HAD LEFT THE STANDARDS LABORATORY. S/N 308-0289.</p>						
<p>CORRECTIVE ACTION-A ONE POINT OUTPUT CHECK OF THE TRANSDUCERS IS BEING MADE AFTER CLEANING.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER BUS WIRE ERS	SP-89-24-4208-F TELEMETRY BUS WIRE	FAR 69-11201-801	1990 831017	FACTORY	YES NO	
<p>FAILURE MODE-ELECTRICAL OPEN. AN OPEN CIRCUIT WAS INDICATED BETWEEN PINS SMALL E TO R OF THE BUBBLING ASSEMBLY. FAILURE WAS DUE TO THE COPPER WIRE NOT BEING STRIPPED OF ITS VARNISH COATING BEFORE INSERTION INTO PIN R.</p>						
<p>CORRECTIVE ACTION-FACTORY PERSONNEL WERE NOTIFIED OF THE FAILURE AND CAUTIONED TO EXERCISE MORE CARE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER OSCILLATOR ERS	SP-89-24-4193-F TELEMETRY OSCILLATOR	FAR 27-11841-931	1970 831017	13	YES	BENDIX NO 1048630
<p>FAILURE MODE-FAIL DURING OPERATION. THE TELEMETRY CANISTER FAILED WHEN THE CHANNEL-18 OSCILLATOR HAD NO OUTPUT. THE FAILURE WAS NOT CONFIRMED BECAUSE THE FAILED PART WAS REMOVED FROM THE CANISTER AND REPLACED WITH A GOOD PART BEFORE FAILURE ANALYSIS.</p>						
<p>CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.</p>						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	CT-88-24-884-F	PAR 27-01867-5	1-2 831017	8-4	YES NO	YES TRANSONICS	000580
FAILURE MODE-OUT OF EXPECTED TEST VALUE. DATA ABRUPTLY WENT OFF SCALE HIGH AT 165 PLUS 340 SECONDS. MEASUREMENT CAM E ON SCALE AFTER THE TEST. ANALYSIS COULD NOT CONFIRM FAILURE. HOWEVER, A STRESS FAILURE OF THE COIL WIRE DUE TO TEN SION WAS CAUSING AN OPEN CIRCUIT CONDITION IN THE TRANSDUCER.							
CORRECTIVE ACTION-A.) VENDOR REVIEW COIL WINDING INSPECTION AND B.) DESIGN GROUP EXAMINE THE LIMITING ELEMENTS OF E XCESSIVE HEAT, CURRENT, VIBRATION, AND INSTALLATION AS BEING INDIVIDUAL OR COMBINED CAUSES OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	88-2040-1	UTP-PAT 89-01003-31	831016	50/C	NO NO	BOURNS 8007371703	002330
FAILURE MODE-OUT OF SPECIFICATION. AVERAGE RESPONSE TIME WITH 4 TESTS, 15.2 MILLISEC. SPECIFICATION IS 15.0 MILLISE COND.							
CORRECTIVE ACTION-NONE. RESPONSE TIME OF THE TEST EQUIPMENT IS 0.3 MILLISEC. THEREFORE, UNIT IS WITHIN SPECIFICATIO N.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	AP-90-24-4188-F	PAR 27-12842-803	2240 831016	WTR	YES NO	UNITED ELECTRO DYNAMICS 143646	001010
FAILURE MODE-CONTAMINATION. THE SIGNAL CONVERTER FAILED WHEN THE NEGATIVE GATE WAS SHIFTING IN A RANDOM PATTERN. TH E FAILURE WAS CAUSED BY PARTICLES OF POTTING COMPOUND GETTING BETWEEN THE WIPER AND THE COMMUTATOR SURFACE. THE POTT ING COMPOUND CAME FROM THE UPPER PORTION OF THE COMMUTATOR WHERE THE COMMUTATOR SEGMENT WIRES ARE SECURED IN THE ASS EMBLY.							
CORRECTIVE ACTION-NONE. THE VENDOR STATES THAT POTTING COMPOUND FLAKING CAN ONLY BE CAUSED BY REMOVAL AND REASSEMBLY OF THE END CAP OF THE COMMUTATOR. THERE IS NO PROOF THAT THE END CAP HAD NOT BEEN REMOVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	LV-89-24-4198-C	PAR 27-11864-3	225D 831016	FACTORY	NO NO		
FAILURE MODE-OUT OF SPEC. THE MAG-AMP OUTPUT OF THE MAGNETIC AMPLIFIER ASSEMBLY WAS 88 PERCENT OF FULL BANDWIDTH WH EN 75 PERCENT WAS EXPECTED. THE FAILURE ANALYSIS WAS CANCELLED BECAUSE THE ASSEMBLY HAD BEEN CALIBRATED TO THE WRONG VOLTAGE, AND THEREFORE WOULD NOT OPERATE WITHIN SPEC.							

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SYSTEM	TEST/REPORT NUMBER	DIF DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE DIF	TIME DIF	OTH	VENDOR PART NO
CORRECTIVE ACTION-THE CALIBRATION DOCUMENT WAS UPDATED.						
INSTRUMENTATION-A/B	CT-99-24-899-C	FAR	931018	FACTORY	YES	SOLVIM
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS		99-01107-93			NO	401-6-4-78
FAILURE MODE-LEAK EXTERNAL. 60/C STANDARDS LAB FOUND THIS TRANSDUCER TO BE LEAKING AROUND THE BASE OF THE ELECTRICAL CONNECTOR.						
CORRECTIVE ACTION-ANALYSIS CANCELLED BY CENTAUR RELIABILITY.						
INSTRUMENTATION-A/B	LV-99-24-4374-F	FAR	2160	FACTORY	YES	BENDIX
TELEMETRY SET AND TRANSDUC OSCILLATOR ELECTRONIC TUBE		27-11841-933	931014		NO	303-0033
FAILURE MODE-ERRATIC OPERATION. THE CHANNEL 4 OSCILLATOR TRANSMITTED A RANDOM FREQUENCY. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A DEFECTIVE VACUUM TUBE IN THE OSCILLATOR. THE EXACT CAUSE OF FAILURE COULD NOT BE DETERMINED DUE TO A MADDVENTENT DESTRUCTION OF THE VACUUM TUBE DURING FAILURE ANALYSIS.						
CORRECTIVE ACTION-NO SPECIFIC CORRECTIVE ACTION WAS TAKEN DUE TO THE DESTRUCTION OF THE VACUUM TUBE.						
INSTRUMENTATION-A/B	A-99-24-4223-F	FAR	931014	FACTORY	YES	
TELEMETRY SET AND TRANSDUC CALIBRATOR-TRANSDUCERS		27-12293-1			NO	
FAILURE MODE-OUT OF TOLERANCE. THE CALIBRATOR FAILED WHEN OPERATION TIME WAS ZERO SECONDS. THE CALIBRATOR SHOULD OPERATE FROM 15 TO 95 SECONDS, ACCORDING TO EOP 330.409. FAILURE ANALYSIS DID NOT CONFIRM THE OPERATING TIME OF ZERO SECONDS. THE CALIBRATOR WAS FOUND TO HAVE A SLIGHTLY HIGH OPERATING TIME. THIS WAS CAUSED BY A LEAKY BASE TO EMITTER 9-5 TRANSISTOR. THE TRANSISTOR ALSO HAD A LOW CURRENT GAIN. THE CAUSE OF THE TRANSISTOR FAILURE IS NOT KNOWN.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B	LV-99-24-4231-F	FAR	931014	FACTORY	YES	BENDIX
TELEMETRY SET AND TRANSDUC OSCILLATOR POTENTIOMETER		7-01664-883			NO	1040889-107
FAILURE MODE-OUT OF SPECIFICATION. OUTPUT WAS TOO HIGH FOR A GIVEN INPUT STIMULUS. ADJUSTING DEVIATION POTENTIOMETER						

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SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PR1 OTH	VENDOR NAME VENDOR PART NO	
R HAD NO EFFECT. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A FAULTY SOLDER CONNECTION.							000070
CORRECTIVE ACTION-VENDOR WAS INFORMED OF FAILURE MODE AND REQUESTED TO REVIEW SOLDERING TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATION ERS	LV-99-24-4270-F	FAR 97-12291-1	031014	FACTORY	YES NO		000037
FAILURE MODE-OUT OF TOLERANCE. OPERATION TIME WAS 37 SECONDS WHEN 13 TO 39 SECONDS IS ALLOWED. FAILURE CONFIRMED. CALIBRATOR DURING ANALYSIS FAILED TO WORK DUE TO LOW GAIN OF TRANSISTOR Q4. Q4 HAD EXCESSIVE LEAKAGE (BASE TO EMITTER) RESULTING FROM SPIKE BEING APPLIED TO BY THE CALIBRATOR.							
CORRECTIVE ACTION-DIODES (TYPE 5N51D) WERE ADDED ACROSS BASE TO EMITTER OF Q3 AND Q4, LIMITING NEGATIVE SPIKES TO A MAXIMUM OF 3 VDC.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC MAGNETIC AMPLIFIER ERS	LV-99-24-4413-F	FAR 90-07900-017	031012	FACTORY	YES NO	MICRO MAGNETIC MO 12-101-4	000036
FAILURE MODE-FAIL DURING OPERATION. THE MAGNETIC AMPLIFIER DID NOT OPERATE AT TEMPERATURES BELOW 15 DEGREES F.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ELECTRICAL CONNECTOR ERS	LV-99-24-4346-F	FAR 87-11804-3	031012	FACTORY	YES NO		000077
FAILURE MODE-ELECTRICAL OPEN. LEADING TO ERRATIC OPERATION. MAGNETIC AMPLIFIER ASSEMBLY FAILED DURING FINAL FACTORY CHECKOUT WHEN ITS OUTPUT VARIED WITH TEMPERATURE CHANGES. FAILURE WAS CONFIRMED AND ATTRIBUTED TO CONNECTOR P3239 B BEING CONNECTED BUT NOT SOLDERED IN THE CIRCUIT, THEREBY CAUSING AN OPEN CIRCUIT WITH TEMPERATURE CHANGES.							
CORRECTIVE ACTION-MANUFACTURING AND INSPECTION PERSONNEL WERE INFORMED OF THE FAILURE AND REQUESTED TO IMPROVE QUALITY CONTROL OF THE UNIT.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CHANGEOVER SWITCH ERS	SP-AS-24-4184-F	FAR 7-01722-3	1980 031012	FACTORY	YES	60C NO	081022
FAILURE MODE-CONTAMINATION. THE TELEMETRY ACCESSORY PACKAGE, 27-11816-339, FAILED WHEN THE PREFLIGHT CALIBRATION OCCURRED DURING THE INTERNAL SEQUENCE. IT SHOULD OCCUR ONLY DURING EXTERNAL SEQUENCE. FAILURE WAS CAUSED BY PINS P12 A NO P10 OF THE POWER CHANGEOVER SWITCH NOTMATING CONTACT WHEN ACTIVATED. THIS WAS CAUSED BY GREASE ON THE CONTACTS CO MEALING AT LOW TEMPERATURES.							
CORRECTIVE ACTION-NONE. NO GREASE HAS BEEN USED IN SWITCHES P/N 7-01722-3, MANUFACTURED AFTER MARCH 1963.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BANDPASS FILTER ERS	A-99-24-4285-F	FAR 87-01895-1	031011	FACTORY	YES	APPLIED COMPO NO ENTS AC13030-1	083800
FAILURE MODE-OUT OF SPECIFICATION. THE UNIT FAILED TO MEET SPECIFICATION OF EOP 330.411. THE FAILURE WAS DUE TO AN INCOMPATIBILITY BETWEEN EOP 330.411 AND THE SPECIFICATION CONTRA. DRAWING 27-01895.							
CORRECTIVE ACTION-EOP 330.411 WAS CORRECTED TO AGREE WITH THE SPECIFICATION CONTROL DRAWING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER, WIRING ERS	SLV-99-24-4223-F	FAR 69-01013-1	031011	FACTORY	YES	NO	083801
FAILURE MODE-OPEN (ELECT). FOUR REACTORS FAILED IN THEIR TEST ASSEMBLY, THE FREQUENCY DETECTOR, WHEN THEY WERE FOUR D OPEN ELECTRICALLY. THE FAILURES WERE CONFIRMED. THEY WERE CAUSED BY OPEN CIRCUITS BETWEEN THE PINS AND THE WIRES O F THE WINDINGS. THE OPEN CIRCUIT WAS CAUSED BY INADEQUATE APPLICATION OF HEAT AND SOLDER, IMPROPER POSITIONING OF TH E WIRE, OR IMPROPER CLEANING OF THE WIRE.							
CORRECTIVE ACTION-FACTORY PERSONNEL CONCERNED WERE SENT TO 60C SOLDERING SCHOOL. TIGHTER CONTROLS ARE BEING EXERCIS ED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	LV-AS-24-4217-F	FAR 7-01720-3	1980 031011	FACTORY	YES	BOUNDS NO 75911-0-35-732	083801
FAILURE MODE-CONTAMINATION. NO OUTPUT. FAILURE CAUSED BY FIBERS OR POTTING COMPOUND LOGGING BETWEEN WIPER AND MANOR EL.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-VENDOR IMPROVED CLEANING FACILITIES AND PRACTICES ON 20 MAR 63. LAST OF THESE UNITS RECEIVED IN M AT 62.						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC OSCILLATOR/TUBE	LT-99-24-4242-F	FAR	631011	FACTORY	YES	REMOIX
ERR		7-01664-883			NO	1040659-107
FAILURE MODE-FAIL DURING OPERATION. OSCILLATOR OPERATED INTERMITTENTLY AT POWER APPLICATION. FAILURE CONFIRMED. CAU SED BY CHANGE OF V2 (OSCILLATOR TUBE) CHARACTERISTICS.						
CORRECTIVE ACTION-NONE. UNIT WITHIN WHICH THIS OSCILLATOR IS INSTALLED HAS SINCE BEEN WAIVERED FROM FAILURE ANALYSIS						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC BANDPASS FILTER/CAPACITOR	LV-99-24-4233F	FAR	631011	FACTORY	YES	APPLIED COMPO
ERR		27-01293-7			NO	ENTB
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED WHEN OUTPUT WAS LOW. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A CHAN GE IN VALUE OF THE SERIES RESONANT CAPACITOR AND/OR A CHANGE IN INDUCTOR VALUE.						
CORRECTIVE ACTION-APPLIED "COMPONENTS HAS INDICATED, THAT AFTER 1 JUNE 1963 ALL UNITS WILL BE TEMPERATURE CYCLED TO ISOLATE UNIT" T CHANGE VALUES. THOSE UNITS DISPLAYING A CHANGE WILL NOT BE ACCEPTED FOR SHIPMENT TO 60/C.						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC ELECTRICAL FILTER	ALV-29-24-4339-F	FAR	631317	FACTORY	YES	APPLIED COMPO
ERR		27-01293-7			NO	ENTB
FAILURE MODE-OPEN (ELECT). BANDPASS FILTER FAILED WHEN OUTPUT WAS INTERMITTENT. FAILURE WAS CONFIRMED AND DUE TO AN OPEN CIRCUIT OF THE SERIES-RESONANT INDUCTOR LEAD AS A RESULT OF PRESSURES ON THE CASE DURING HANDLING, TESTING, OR INSTALLATION IN THE LIMITER FILTER.						
CORRECTIVE ACTION-VENDOR HAS INDICATED ALL FUTURE BANDPASS FILTERS OF THIS PART NUMBER WILL BE ENCLOSED IN A METAL CONTAINER. THIS WILL PREVENT DAMAGE TO INTERNAL PARTS DUE TO EXTERNAL PRESSURE.						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC AMPLIFIER.	SP-99-24-4179-F	FAR	631011	FACTORY	NO	REMOIX
ERR					NO	1066170
FAILURE MODE-OUT OF SPECIFICATION. THE AMPLIFIER HAD AN OUTPUT OF 4.0 WATTS. THE SPECIFICATION MINIMUM IS 4.5 WATTS						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	<p>THE FAILURE WAS NOT CONFIRMED. IT WAS LEARNED DURING ANALYSIS THAT AN EXTERNAL LOAD WAS USED DURING ORIGINAL TESTING. THE EOP CALLS FOR THE TEST TO BE MADE WITH NO EXTERNAL LOAD ON THE AMPLIFIER. IMPROPER TESTING METHODS CAUSED THE REJECTION OF THE AMPLIFIER.</p>						001040
	<p>CORRECTIVE ACTION--FAILURE NOT CONFIRMED. AN AVOID VERBAL ORDER FORM WAS SENT TO TESTING DEPARTMENT SUPERVISION ON 8 OCTOBER 1963 REQUESTING TESTING PERSONNEL BE CAUTIONED TO FOLLOW CORRECT PROCEDURES.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER COMMUTATOR/CONNECTOR ERS	LV-81-24-4252-F	FAR 27-01231-1	631011	FACTORY	YES	BENDIX NO 1030222	001063
	<p>FAILURE MODE-CONTAMINATION. UNIT WAS REPORTED TO HAVE THE A SECTION ODD AND EVEN SEGMENTS SHORTED TOGETHER. FAILURE WAS CONFIRMED. CAUSE BY CONTAMINATION IN THE INPUT CONNECTOR.</p>						
	<p>CORRECTIVE ACTION-TECHNICIANS AND INSPECTORS WERE INFORMED TO BE MORE CAREFUL IN CONNECTING AND INSPECTING ELECTRICAL CONNECTORS TO ELIMINATE FAILURES DUE TO CONTAMINATION.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	FAR-LV-AB-24-4226	FAR 27-03000-033	1990 631010	FACTORY	YES	SERVONIC NO L-64	003350
	<p>FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE TRANSDUCER (MEASUREMENT F118P) FAILED WHEN OUTPUT VOLTAGE WAS REPORTED AS BEING TOO HIGH.</p>						
	<p>CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	SP-AB-24-4212-F	FAR 7-01723-11	1990 631010	FACTORY	YES	BOURNS NO 48013-0-30-752	002974
	<p>FAILURE MODE-OUT OF SPECIFICATION. OUTPUT MEASURED 41 PERCENT IDW WHEN 30 PERCENT IDW IS EXPECTED. A POSITIVE 13.3 PERCENT ERROR WAS FOUND DURING TESTING WHEN PLUS OR MINUS 1.0 PERCENT IS ALLOWED. FAILURE CAUSED BY OVERPRESSURIZATION OF THE TRANSDUCER.</p>						
	<p>CORRECTIVE ACTION-PROCEDURES AND METHODS REVIEWED FOR AMBIGUITY OR POSSIBLE MISINTERPRETATION. BUT NONE WERE FOUND.</p>						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DI	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	SP-AB-24-4174-F	FAR 7-01723-13	1950 631010	FACTORY	YES	CONSOLIDATED E LECTRO DYN 4-260-NA-100	000071
FAILURE MODE-STRUCTURAL. UNIT INDICATED AN OPEN CONDITION THROUGHOUT TESTING. REPORTED FAILURE NOT CONFIRMED. HOWEVER, ERRATIC OUTPUT FOUND DURING ANALYSIS. IT IS CONCLUDED THE UNIT WAS VIBRATION SENSITIVE PRIOR TO VIBRATION TESTING AND THAT WIPER DRIVING LINK SCREW WAS LOOSE DURING VIBRATION CAUSING UNIT TO FAIL.							
CORRECTIVE ACTION-NONE. VENDOR NO LONGER MAKING THIS TRANSDUCER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR/TRANSFORMER	A-20-24-4237-F	FAR 87-12386-1	631010	FACTORY			000025
FAILURE MODE-ELECTRICAL SHORT. PEAK TO PEAK OUTPUT VOLTAGE WAS 1.9 VOLTS WHEN 3.35V P.P WAS SPECIFIED. FAILURE VERIFIED. CAUSED BY A BURNED AND SHORTED PORTION OF THE PRIMARY OF T-3.							
CORRECTIVE ACTION-NONE. DAMAGE OF BURNED AREA WAS SO EXTENSIVE THAT THE EXACT CAUSE OF FAILURE COULD NOT BE DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR-RELAY	LV-99-24-4219-F	FAR 7-12222-3	631010	FACTORY	YES		000004
FAILURE MODE-ERRATIC OPERATION. THE IN-FLIGHT CALIBRATOR FAILED WHEN CALIBRATE PULSES WERE INTERMITTENTLY MISSING. FAILURE WAS CAUSED BY THE DEFECTIVE K-4 RELAY.							
CORRECTIVE ACTION-NONE. CAUSE OF RELAY FAILURE NOT DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AC-DC CONVERTER	LV-99-24-4232-F	FAR 87-12382-3	631010	FACTORY	YES		000071
FAILURE MODE-DRIFT. OUTPUT DRIFTED 0.006 VDC. MAX. DRIFT ALLOWED IS 0.001 VDC. FAILURE COULD NOT BE CONFIRMED.							
CORRECTIVE ACTION-NONE. FAILURES COULD NEITHER BE DUPLICATED NOR EVIDENCE OF FAILURE FOUND.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE DIP TIME	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	A-99-24-4236-F	FAR 7-01780-3	031010	FACTORY	YES	BOURNS NO 73511-0-33-732	091009
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER INDICATED A NEGATIVE STATIC ERROR OF -1.72 PERCENT. FAILURE WAS NOT CONFIRMED AND NO SUBSTITUTION OF THE CAUSE OF THE REPORTED FAILURE WAS MADE.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	LY-99-24-4231-F	FAR 7-01664-051	031010	FACTORY	YES	SEMIOX NO TOE41	091004
FAILURE MODE-FAIL DURING OPERATION. UNIT HAD NO OUTPUT. FAILURE WAS CONFIRMED. DURING ANALYSIS FAILURE MODE CORRECTED ITSELF AND DID NOT RECUR. NO EVIDENCE COULD BE FOUND AS TO THE PROBABLE CAUSE.							
CORRECTIVE ACTION-NONE. FAILURE DISAPPEARED AND COULD NOT BE CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC RELAY ERS	SP-69-24-4176-F	FAR 27-11873-1	1990 031007	FACTORY	YES	RO/C NO	091040
FAILURE MODE-OUT OF TOLERANCE. ASSEMBLY HAD NO CONTINUITY BETWEEN PINS D AND F WITH THE COIL ENERGIZED. ANALYSIS SHOWED THAT THREE JUMPER WIRES IN THE RELAY WERE MISSING. RELAY TYPE 66-73900-100.							
CORRECTIVE ACTION-PLANNING PAPER 27-11873-1, BO1, WAS RELEASED. CALLING FOR AN ADDITIONAL ELECTRICAL CHECK OF THE RELAY ASSEMBLY BEFORE POTTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER-TRANSFORMER ERS	SP-99-24-4204-F	FAR 27-12408-3	031007	FACTORY	YES	WDC NO	
FAILURE MODE-ELECTRICAL OPEN. THE LIMITER FILTER OUTPUT COULD NOT BE ADJUSTED ABOVE 4.3 MILLIVOLTS AC, WHEREAS 287M MILLIVOLTS AC ARE SPECIFIED. AN OPEN CIRCUIT IN THE SECONDARY WINDING OF TRANSFORMER T-1 RESULTED IN LOSS OF GROUND REFERENCE, CAUSING THE FAILURE. THE TRANSFORMER COULD HAVE FAILED AS A RESULT OF MANUFACTURING DEFECT OR BY MISAPPLICATION OF VOLTAGES. THE MISSING OF CAPACITOR C-3 APPARENTLY HAD NO EFFECT ON THE FAILURE. N/A 27-12390.							
CORRECTIVE ACTION-IN AN EFFORT TO PREVENT SIMILAR WIRING DISCREPANCIES, FACTORY PERSONNEL WERE NOTIFIED OF THE FAILURE.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
LA. AND ITS CAUSE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONVERTER-CAPACITOR ERI	SP-99-24-4196-F CONVERTER-CAPACITOR	FAR 27-18235-3	631007	FACTORY	YES	60C NO
<p>FAILURE MODE-CONTAMINATION. THE AC-DC CONVERTER WAS REMOVED FROM THE TOP PACKAGE AFTER CAPACITOR C-1 ALLEGEDLY BURNED OUT. THE C-1 FAILURE WAS NOT CONFIRMED. HOWEVER, THE C-8 CAPACITOR WAS BEING SHORTED-OUT BY A GRAY PASTY SUBSTANCE. THIS CONTAMINATION ALSO PARTIALLY SHORTED THE TERMINALS OF TRANSISTOR Q-1. EN-338. THE SOURCE OF THE CONTAMINATION WAS NOT FOUND.</p>						
<p>CORRECTIVE ACTION-SHOP AND INSPECTION PERSONNEL WERE CAUTIONED TO TAKE EXTREME CARE TO SAFEGUARD AGAINST CONTAMINATION OF ELECTRONIC PACKAGES.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERI	FAR-SP-49-24-4203 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-93900-033	1990	FACTORY	YES	SERVONIC NO L-84
<p>FAILURE MODE-STRUCTURAL. THE TRANSDUCER FAILED WHEN IT READ 79 PERCENT OUTPUT WITH ZERO PSID APPLIED. OVERPRESSURIZATION AT THE LOW PORT CAUSED PERMANENT DISTORTION OF THE BELLOW AND SHIFTED THE U-PSID OF THE WIPER IN A POSITIVE DIRECTION. METAL PARTICLES WERE ALSO FOUND INSIDE THE TRANSDUCER CASE.</p>						
<p>CORRECTIVE ACTION-RECOMMENDED 50/C APPROPRIATE PERSONNEL BE INFORMED OF THE CAUSE OF FAILURE AND ACTION BE TAKEN TO PRECLUDE RECURRENCE. ALSO RECOMMENDED CONSIDERATION BE GIVEN TO PURGING THIS TRANSDUCER STOCK FOR CONTAMINATED UNIT.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR/TUBE-ELECTRONIC ERI	LV-99-24-4230F OSCILLATOR/TUBE-ELECTRONIC	FAR 7-01488-827	631006	FACTORY	YES	BENDIX NO Y-01488-827
<p>FAILURE MODE-ERRATIC OPERATION. OSCILLATOR DISPLAYED A NON LINEAR OUTPUT FREQUENCY. FAILURE CONFIRMED CAUSE. EXACT CAUSE UNKNOWN SINCE V1 OSCILLATOR TUBE WAS DAMAGED DURING FAILURE ANALYSIS. PROBLEM WAS ISOLATED TO THE V1 OSCILLATOR TUBE BEFORE IT WAS DAMAGED AND THE MOST LIKELY CAUSE WAS NON LINEAR VARIATIONS OF THE 1A GRID CURRENT.</p>						
<p>CORRECTIVE ACTION-NONE.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	LV-A9-24-4213-F LV-A9-24-4213-F	FAR 7-01720-5	1990 031003	FACTORY	YES BOURNS NO 75311-0-35-752		002973
FAILURE MODE-OUT OF TOLERANCE. NO OUTPUT INDICATED. REPORTED FAILURE NOT CONFIRMED HOWEVER INTERMITTENT OPENS THROU GH THE WIPER OCCURRED. THESE WERE APPARENTLY CAUSED BY OUT OF TOLERANCE CLEARANCES IN VIBRATION DAMPING MECHANISM.							
CORRECTIVE ACTION-NONE. THIS TRANSDUCER NO LONGER BEING MANUFACTURED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	LV-A9-24-4213-F LV-A9-24-4213-F	FAR 7-01720-5	1990 031003	FACTORY	YES BOURNS NO 75311-0-35-752		001360
FAILURE MODE-FAIL DURING OPERATION. UNIT WAS REPORTED TO HAVE NO OUTPUT. FAILURE NOT CONFIRMED. HOWEVER WIPER ARM L IFTOFF WAS EVIDENT WHEN VIBRATED AT 100 CPS AND 10 GS.							
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO REVIEW CONSTRUCTION TECHNIQUES AND TO IMPROVE THE VIBRATION DAMPING QUALI TIES OF THE TRANSDUCERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC LUNITER FILTER ASSEMBLY ERS	LV-98-24-4872-C LV-98-24-4872-C	FAR 27-12287-1	031004	FACTORY	YES 60/C NO		001386
FAILURE MODE-OUT OF TOLERANCE. THE FL-E FILTER COMPONENT WAS REPORTED OUT OF TOLERANCE. FAR WAS CANCELED BECAUSE U MIT WAS RECEIVED FOR ANALYSIS MISSING THE FL-E FILTER.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	A-99-24-4027-F A-99-24-4027-F	FAR	031003		YES BENOIX NO 1096495-68		004413
FAILURE MODE-CONTAMINATION. 30 RPS COMMUTATOR WAS OBSERVED TO BE INTERMITTANT. FAILURE COULD NOT BE DIRECTLY CONFIR MED. HAND TURNING OF THE GEAR TRAIN DISCLOSED A SLIGHT BINDING EFFECT. PLANETARY GEARS WERE CLEANED. BINDING EFFECT THEN DISAPPEARED.							
CORRECTIVE ACTION-VENDOR INFORMED OF PROBLEM AND REQUESTED APPROPRIATE CORRECTIVE ACTION BE TAKEN.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	DATE DIF	DATE DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY-CAPACITOR ERS	LV-89-24-4921-F LV-89-24-4921-F	FAR 27-18991-1	831003	FACTORY	YES	BENDIX NO	1040659-9-A
<p>FAILURE MODE-OUT OF TOLERANCE. THE POWER SUPPLY CALIBRATION INPUT WAS 0.0 TO -0.02 VOLT DC WHEREAS -0.250 VOLT DC WAS EXPECTED. AN 80-MILLIVOLT RMS SIGNAL WAS OBSERVED ACROSS RESISTOR R-114, A 10-OHM REFERENCE RESISTOR. THE FAILURE WAS CAUSED BY CAPACITORS C-110 AND C-111 BEING INCORRECTLY INSTALLED IN THE CIRCUIT, RESULTING IN CROSSCOUPLING OF THE 100-VOLT POWER SUPPLY CIRCUIT INTO THE 275-VOLT CIRCUIT.</p>							
<p>CORRECTIVE ACTION-BENDIX CHANGED TEST PROCEDURE BPS-ADT-2020, TO REQUIRE RIPPLE MEASUREMENTS ON ALL OUTPUT VOLTAGES</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	LV-80-24-4855 LV-80-24-4855	FAR 7-01783-1A	2240 831003	WTR	YES	BURNS NO	4-380-MA-100
<p>FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER WAS NON-LINEAR AT THE LOW END OF THE SCALE. THE ORIGINAL CALIBRATION SHEET OF JUNE 18, 1963 SHOWED THE TRANSDUCER OUTSIDE OF STATIC-ERROR-BAND REQUIREMENTS AND SHOULD HAVE BEEN REJECTED AT THAT TIME. ANALYSIS CONFIRMED THE PRESENT FAILURE, HOWEVER, CAUSE OF FAILURE WAS NOT DETERMINED.</p>							
<p>CORRECTIVE ACTION-RECOMMENDED PERSONNEL INVOLVED WITH CALIBRATION OF PRESSURE TRANSDUCERS BE INFORMED OF REJECTION REQUIREMENTS.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-POTENTIOMETER ERS	SP-99-24-4193-F SP-99-24-4193-F	FAR 7-01864-853	831003	FACTORY	YES	BENDIX NO	1040659-9-T
<p>FAILURE MODE-FAIL DURING OPERATION. THE OSCILLATOR FAILED WHEN CHANNEL-8 HAD NO OUTPUT. THE OSCILLATOR HAD NO OUTPUT WHEN RECEIVED FOR FAILURE ANALYSIS. DUE TO THE POTENTIOMETER BEING SET FOR NO OUTPUT. HOWEVER, OUTPUT COULD EASILY BE ADJUSTED WITHIN SPECIFICATION REQUIREMENTS BY ADJUSTING THE POTENTIOMETER ACCORDING TO THE SOP.</p>							
<p>CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	SP-99-24-4190-F SP-99-24-4190-F	FAR 7-01864-853	831003	FACTORY	YES	BENDIX NO	1040659-8-T
<p>FAILURE MODE-FAIL DURING OPERATION. THERE WAS NO OUTPUT FROM CHANNEL 8 OSCILLATOR.</p>							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	PRI OTM	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-98-24-4172-F FAIR	27-01988-33	611002	FACTORY	YES SERVONICS NO M-172-4
FAILURE MODE-STRUCTURAL. STATIC ERROR BAND WAS REPORTED TO BE -4.88 PCT. FAILURE CONFIRMED. CAUSE- CRACK IN THE ARE A WHERE THE BOURDON TUBE IS BRAZED TO THE TRANSDUCER BASE.					
CORRECTIVE ACTION-VENDOR NOW USING A FLUX COATED SILVER BRAZING ALLOY AND FEELS CONSIDERABLE IMPROVEMENT WILL BE RE ALIZED. THE M-172 SERIES WERE ALSO REDESIGNED TO FREE THE BRAZED AREA FROM THE EXTERNAL PRESSURE FITTING ELIMINATING TORQUE FROM THIS AREA.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS	A-98-24-4315-F FAIR		931002	FACTORY	YES BENDIX NO 1096405
FAILURE MODE-CONTAMINATION. SPEED VARIATIONS WERE OBSERVED DURING VIBRATION TESTING. 2 UNITS WERE CHECKED UNDER THE 8 P.A.R. FAILURES WERE CONFIRMED. CAUSE M. CARBON DUST AROUND ARMATURE AND PITTED GOVERNOR CONTACTS. AFTER MOTORS WERE CLEANED AND GOVERNOR CONTACTS BURNISHED, SPEED VARIATIONS WERE WITHIN TOLERANCE.					
CORRECTIVE ACTION-BAR LY-99-24-3104 WAS WRITTEN REQUESTING REPLACEMENT OF HEAVYWEIGHT COMMUTATORS WITH A LIGHTWEIGH T VERSION.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	BP-49-24-4170-F FAIR	27-11341-937	1090	FACTORY	YES BENDIX NO 1443630-3
FAILURE MODE-CONTAMINATION. THE TELEMETRY PACKAGE FAILED WHEN CHANNELS 11, 19, AND 16 DISPLAYED EXCESSIVE COMMUTATO R SPEED VARIATION. THE FAILURES WERE CAUSED BY EXCESSIVE AMOUNTS OF MOTOR BRUSH CARBON IN THE GEAR TRAIN AND ON THE GOVERNOR CONTACTS.					
CORRECTIVE ACTION-NONE CORRECTIVE ACTION TAKEN.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGEOVER SWITCH ERS	FT4821/PS-4CO-08-197 FAIR		COMPOSITE-J FACT	1970	19 YES 930930 PLUS 900 NO
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. AFTER THE PLUS COUNT IT WAS INDICATED THAT TELEMETRY COULD NOT BE					

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYS-ITEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
<p>RETURNED TO EXTERNAL POWER.</p> <p>SYSTEM EFFECT-OPERATION TOO LONG. SYSTEM WOULD NOT SWITCH TO EXTERNAL.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED.</p> <p>CORRECTIVE ACTION-CANISTER SENT TO TELEMETRY LAB FOR CHECKOUT.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	LV-99-24-4209-C COMMUNICATOR	FAR 27-11248-859	2300 630930	FACTORY	YES NO	BENDIX-PACIFIC 1041844
<p>FAILURE MODE-ERRATIC OPERATION. THE 3-RPS COMMUNICATOR FAILED EOP 330.329.10, PARAGRAPH 13, IN THE TOP PACKAGE WHEN CHANNEL 14 HAD EXCESSIVE NOISE. THE UNIT WAS OPENED BY SHOP PERSONNEL AND A BURNED SEGMENT WAS OBSERVED AT SECTION A-32. THE BURNED SEGMENT HAD OCCURRED AT SOME UNDETERMINED TIME PRIOR TO THE TEST, THEREFORE THE CAUSE OF THE FAILURE CANNOT BE DETERMINED.</p> <p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER POWER SUPPLY	3F-99-24-4133-F TELEMETRY SET AND TRANSDUCER POWER SUPPLY	FAR 27-12991-1	2840 630930	FACTORY	YES NO	BENDIX-PACIFIC AND GOC 1048173-2A
<p>FAILURE MODE-FAIL DURING OPERATION. THE TELEMETRY POWER SUPPLY FAILED WHEN THE SUBCARRIER OSCILLATOR PLATE VOLTAGE READ ZERO. THE REPORTED ZERO OUTPUT VOLTAGE WAS NOT VERIFIED. TELEMETRY POWER SUPPLY FAILURE WAS CAUSED BY THE 108-VOLT OUTPUT BEING SHORTED. THE ACTUAL CAUSE FOR FAILURE COULD NOT BE FOUND SINCE THE TOP FACE AGE WAS NOT RECEIVED FOR FAILURE ANALYSIS.</p> <p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TRANSMITTER-SCREEN	A-99-24-4167-F TELEMETRY SET AND TRANSDUCER TRANSMITTER-SCREEN	FAR 27-01610	2320 630930	FACTORY	YES NO	BENDIX-PACIFIC 3131107-TXV-30 G
<p>FAILURE MODE-STRUCTURAL. THE TELEMETRY TRANSMITTER FAILED IN THE RF 1 TELEMETRY CANISTER DURING PRODUCTION VIBRATION. BY INDICATING NOISE OF APPROXIMATELY 60 CPS AND 9 PERCENT OF FULL BANDWIDTH ON CHANNEL 1. THE FAILURE WAS UNCONFIRMED. BUT, A LUG WAS MISSING FROM INSIDE THE TRANSMITTER. THE VENDOR TORQUE PAINT SEAL HAD NOT BEEN BROKEN. A SCREW ON THE OUTSIDE OF THE TRANSMITTER WAS MISSING. A 60/C DESIGN GROUP HAD PURCHASED THE UNIT. THEREFORE, 60/C RECEIVING INSPECTION WAS BYPASSED.</p> <p>CORRECTIVE ACTION-UNCONFIRMED FAILURE. AN AVO WAS ISSUED TO THE 60/C DESIGN GROUP CONCERNING THEIR ERROR. IN FEBRUARY</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI OTH	VENDOR NAME VENDOR PART NO
AT 1963 BENDIX-PACIFIC INSPECTION ADDED CLOSE INSPECTION OF LUGS BEFORE MOUNTING THE COVER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-83-84-4139-F SP-99-84-4111-F	FAR 87-01869-8	830926	FACTORY	YES	BENDIX NO 1058094-7-6A
FAILURE MODE-DRIFT. THE SUBCARRIER OSCILLATOR DRIFTED AS MUCH AS 40 CPS FROM CENTER FREQUENCY. THE TOLERANCE IS PLU S OR MINUS 11 CPS.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	SP-99-84-4111-F TELEMETRY SET AND TRANSDUC POWER SUPPLY	FAR 87-01869-1	830926	FACTORY	YES	BENDIX-PACIFIC NO 1046179-2-A
FAILURE MODE-SHORT (ELECTRICAL). PIN B INDICATED A SHORT WITH PIN A ON RECEPTACLE J-48. POSSIBLE CAUSE IS A SHORT I N THE POWER SUPPLY OR EXTERNAL CIRCUITRY ON TWO UNITS.						
CORRECTIVE ACTION-VENDOR CONTACTED AND INCORPORATING CHANGES TO DRAWINGS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	F-40249/P3-4CO-03-187 TELEMETRY SET AND TRANSDUC TLM CANISTER	COMPOSITE-B FACT 27-11941-813	1970 830926	ETR-13	YES NO	
FAILURE MODE-ERRATIC OPERATION. A HUNGER OF SEGMENTS ON TELEMETRY CHANNEL 14 WERE NOISY. SEGMENTS ASSOCIATED WITH L OF TANK SKIN TEMPS HAD POSITIVE AND NEGATIVE SPIKES. ZERO CALIBRATION PULSE HAD A POSITIVE SPIKE.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-CANISTER SENT TO TELEMETRY LAB. CORRECTED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FTA-8249/P3-4CO-03-187 TELEMETRY SET AND TRANSDUC TLM CANISTER	COMPOSITE-B FACT 27-11918-823	1970 830926	ETR-13	YES YES	
FAILURE MODE-OUT OF SPECIFICATION. ON EXTERNAL POWER ESSIV, 400 CYCLE AC PHASE A, INDICATED 132 VOLTS WHILE PANEL ME TER READ 114.6. SWITCHING TO INTERNAL. ESSIV ROSE TO 114.4. VOLTAGE DROP ACROSS CHANGEVER SWITCH WAS DETERMINED TO 3 E NORMAL. PREVIOUS TESTING HAD SHOWN SIMILAR DISCREPANCIES.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	VEHICLE EFFECT-ONE. NO EFFECT INDICATED.						092230
	CORRECTIVE ACTION-PROBLEM UNDER INVESTIGATION. A TELE ACCESSORY PAC HAS BEEN SENT TO TELE. LAB FOR CHECKOUT FOR THE IS REASON.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER OSCILLATOR-WIRING ERS	BP-19-24-4156-F OSCILLATOR-WIRING	FAR 95-01574-133	930923	FACTORY	YES BENDIX NO 1082141-176 TO E 303		091023
	FAILURE MODE FAIL DURING OPERATION. THE VOLTAGE CONTROLLED OSCILLATOR FAILED WHEN ITS OUTPUT FREQUENCY BAND EDGES C OULD NOT BE ADJUSTED DUE TO LOW OUTPUT. THE FAILURE WAS CAUSED BY A BROKEN WIRE THAT CONNECTED THE WIPER OF R-19. THE E OUTPUT POTENTIOMETER, IN THE TEST JACK. SOME OF THE WIRE STRANDS HAD BEEN BROKEN DURING WIRE STRIPPING, AND HEAT C AUSED THE REST TO BREAK.						
	CORRECTIVE ACTION-EFFECTIVE 23 NOVEMBER 1963 THE VENDOR USES THERMAL STRIPPERS ON ALL WIRE, AND 100 PERCENT MICROSC OPIC INSPECTION IS DONE ON ALL SOLDER JOINTS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	A-49-24-4191-F PRESSURE TRANSDUCER	FAR 27-01380-39	2330	FACTORY	YES SERVOMIC NO 2091-0909		092073
	FAILURE MODE-INTERNAL LEAK. NO OUTPUT INDICATED. FAILURE CAUSED BY PRESSURE BUILDUP IN THE HERMETICALLY SEALED CASE DUE TO GAS LEAKAGE THROUGH BRATED JOINT AT BASE OF BOURDON TUBE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER AMPLIFIER-TRANSMITTER ERS	MZ-69-24-4158-F AMPLIFIER-TRANSMITTER	FAR 27-01444-3	2330	FACTORY	YES FINETICS NO		091802
	FAILURE MODE-FAIL DURING OPERATION. THE DIFFERENTIAL AMPLIFIER FAILED TO ADJUST TO 5.000 PLUS OR MINUS 0.30 VOLTS D C AS REQUIRED BY EOP 330.771, PARAGRAPH 5.12. FAILURE WAS DUE TO THE 8-3 TRANSISTOR WHICH HAD EXCESSIVE EMITTER TO B ASE LEAKAGE. THE CAUSE OF LEAKAGE WAS NOT DETERMINED.						
	CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-49-24-4195-F PRESSURE TRANSDUCER	FAR 87-11998-39	233U 830924	FACTORY	YES NO	BERYONICS NO 2091-0909	891871
FAILURE MODE-STRUCTURAL. UNIT WAS REPORTED TO HAVE NO OUTPUT. FAILURE CONFIRMED. CAUSE CRACK IN BRAZED AREA OF THE BOURDON TUBE AND PRESSURE FITTING.							
CORRECTIVE ACTION-UNIT HAD NOT BEEN INSPECTED TO VENDOR'S REVISED PROCEDURE BECAUSE IT HAD BEEN MADE PRIOR TO THE REVISION. GREATER CARE WILL BE TAKEN IN THE FUTURE TO DETECT LEAKY TRANSDUCERS AT THE VENDOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DETECTION-POTENTIOMETER ERS	8P-99-24-4136F POTENTIOMETER	FAR 89-11118-1	830923	FACTORY	YES NO		893303
FAILURE MODE-OPEN (ELECT). UNIT COULD NOT BE ADJUSTED TO THE REQUIRED 9.0 VDC OUTPUT. FAILURE WAS CONFIRMED AND WAS CAUSED BY AN OPEN WIRE WINDING OF POTENTIOMETER R-6 (88-73283-011).							
CORRECTIVE ACTION-NONE. THIS WAS THE ONLY FAILURE OF ITS KIND AND THIS POTENTIOMETER IS BEING PHASED OUT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC LIMITER FILTER ERS	LV-98-24-4258-F LIMITER FILTER	FAR	1970 830921	ETR	YES NO	BENDIX NO 1049903-2	893094
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REPORTED OUT OF TOLERANCE. N/A 87-11941-031.							
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONNECTOR WIRING ERS	8P-49-24-4190-F CONNECTOR WIRING	FAR 87-13411-807	2270 830921	FACTORY	YES NO		
FAILURE MODE-OPEN (ELECT). THE CONNECTOR WAS OPEN BETWEEN PINS 8 AND 9. FAILURE WAS CONFIRMED AND WAS DUE TO AN UNSOLDERED CONNECTION BETWEEN THE COPPER WIRE FROM PIN 8 AND THE CONSTANTAN WIRE FROM PIN 9. THE TWO WIRES WERE NOT PROPERLY TWISTED MECHANICALLY BEFORE THE ATTEMPTED SOLDERING OPERATION, AND FLUX WAS FOUND BETWEEN THE WIRE 8.							
CORRECTIVE ACTION-SOLDER INSPECTORS WERE INSTRUCTED TO -1. INSPECT UNDER AT LEAST A THREE POWER MAGNIFICATION 2. NO T PERMIT RESIDUE ON SILVER SOLDER FLUX ON SOLDERED CONNECTIONS 3. USE INSTRUCTIONS RECEIVED IN SOLDERING SCHOOL							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEMS: A PROLOGUE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
L 4. ACCEPT SOLDERED PARTS IN ACCORDANCE WITH BLUEPRINTS B. ACCEPT PARTS AND JOINTS IN ACCORDANCE WITH APPLICABLE MAUFACTURING STANDARDS REQUIREMENTS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERR	A-99-24-4104-F A-99-24-4104-F A-99-24-4104-F	PAR 27-01229-9	1997 630980	FACTORY	YES NO	YES NO 1060660-1-C
FAILURE MODE-ELECTRICAL SHORT. THE RF AMPLIFIER HAD EXCESSIVE CURRENT. A SHORT IN THE SCREEN CIRCUIT BETWEEN INDUCTOR L-10 AND RESISTOR R-8 RESULTED IN THE EXCESSIVE CURRENT FLOW. THE SHORT EXISTED WHERE A TERMINAL CONTACTED THE IN SIDE SURFACE OF THE BLOWER-MOUNTED CASE COVER WHEN IT WAS TIGHTENED.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERR	LV-99-24-4407-F LV-99-24-4407-F LV-99-24-4407-F	PAR 27-12351-1	630918	FACTORY	YES NO	YES NO YES USED
FAILURE MODE-STRUCTURAL. POWER OUTPUT DECLINED STEADILY. FAILURE WAS CAUSED BY A CRACKED CAPACITOR IN THE OUTPUT POWER AMPLIFIER. CRACKING CAUSED BY OVER TORQUE.						
CORRECTIVE ACTION-FUTURE UNITS TO BE VISUALLY INSPECTED PRIOR TO SEALING. ALL CAPACITORS THAT MUST BE TORQUED TO LIMIT WILL BE REPLACED BY NEXT HIGHER RANGE CAPACITOR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERR	PP1-TF-69C-1792-3 PP1-TF-69C-1792-3 PP1-TF-69C-1792-3	UTP-20AL/PPFT UTP-20AL/PPFT UTP-20AL/PPFT	630918	FACTORY	YES NO	YES NO YES MIANCKO NO P2-4108-13
FAILURE MODE-OUT OF TOLERANCE. DURING PROOF CYCLE, UNIT WAS OUT OF ERROR BAND. CAUSE OF FAILURE NOT DOCUMENTED. (S/N 303-00141).						
CORRECTIVE ACTION-VENDOR REMOVED ALL UNITS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR WASHER ERR	A-99-24-4110-F A-99-24-4110-F A-99-24-4110-F	PAR 99-01171-9	109F 630917	FACTORY	YES NO	YES NO YES FIFTH DEMONSTRATION
FAILURE MODE-OUT OF SPECIFICATION. COMMUTATOR SPEED DECREASED FROM 3 TO 1.7 RPM AT START OF VIBRATION. THE FAILURE WAS CAUSED BY A DEFORMED WASHER WHICH PREVENTED THE MOTOR BRUSH FROM RIDING FIRMLY ON THE COMMUTATOR RING DURING VIBRATION.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUC-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI VENDOR NAME	OTH VENDOR PART NO	
CORRECTIVE ACTION-THE VENDOR INSTITUTED A VERY TIGHT INSPECTION PROGRAM DURING MANUFACTURE OF THE MOTORS.							999414
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC INPUT CONNECTOR LEAD WIRE ERS							999287
	8P-99-24-4149-F	FAR	199D	FACTORY	YES TEXAS INSTRUMENTS	NO MTS	
		58-01149-2	930917			439578-7	
FAILURE MODE-STRUCTURAL. INTERMITTENT CONTACT OF A BROKEN LEAD WIRE TO PIN 9 OF INPUT CONNECTOR CAUSED BREAKUP OF C HARREL 1 THROUGH 9 OUTPUTS.							
CORRECTIVE ACTION-VENDOR ADVISED TO TAKE ACTION TO PREVENT RECURRENCE. THOROUGH VISUAL INSPECTION TO LOCATE THIS TV PC OF PROBLEM BEFORE ACCEPTANCE OF THE UNIT WAS CALLED FOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS							992978
	4-AS-24-4189-F	FAR	233D	FACTORY	YES SERVONIC	NO M-172-9	
		27-01366-39	930917				
FAILURE MODE-LEAK. INTERNAL. OUTPUT WAS 0.38 VDC WHEN 0.43 VDC MINIMUM IS ALLOWED. FAILURE ATTRIBUTED TO PRESSURE B UILDUP IN SEALED CASE DUE TO LEAKAGE THROUGH BRAZE ON FREE END OF BOURDON TUBE.							
CORRECTIVE ACTION-THIS UNIT REPLACED WITH REDESIGNED UNIT WHICH INCORPORATES A FURTHER REVISION OF BRAZING TECHNIQUES AND MATERIALS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS							990331
	FAT-TP-89F-2167-1	UTP-PAT	630917	FACTORY	YES WIAKCO	NO PE-4106-21	
		27-01592-81					
FAILURE MODE-LEAK-EXTERNAL. DURING EXAMINATION OF PRODUCT, UNIT LEAKED BETWEEN SIDE AND COVER PLATE (S/N 30800611). FAILURE WAS CAUSED BY FAULTY PRESSURE SEAL.							
CORRECTIVE ACTION-VENDOR REDESIGNED AND REMOVED ALL UNITS. MODIFICATION CONSISTED OF SUBSTITUTING SILVER TINNED COPPER WIRE FOR COPPER WIRE AND A CHANGE IN SOLDERING METHOD.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS							
	8P-99-24-4207-F	FAR	199D	FACTORY	NO	NO	
		99-13663-1	930913				
FAILURE MODE-ERRATIC OPERATION. CHANNELS 9, 8, 10, AND 11 FLUCTUATED CUT OF BAND DUE TO AN ERRATIC REGULATED POWER SUPPLY OUTPUT. A LACK OF COOLING DURING PRODUCTION VIBRATION TESTING CAUSED THE FAILURE.							

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COMMUNICATION DIVISION

CIRCULIT'S REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTN	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE. THE REGULATED POWER SUPPLY IS PROPERLY HEAT SINKED WHEN IT IS IN THE TELEMETRY PACKAGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSODUC COMMUTATOR-BRUSHES ERS	A-89-24-3213-F	FAR	630919	FACTORY	YES	SENDIX MO 1086469-39
FAILURE MODE-OUT OF TOLERANCE. MOTOR SPEED TOO HIGH. CAUSED BY BRUSH WEAR.						
CORRECTIVE ACTION-EFFECTIVE MAY 23, 1963 TIGHTER CONTROL OF BRUSH MATERIAL WAS STARTED BY THE VENDOR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSODUC OSCILLATOR-TUBE, ELECTRONIC ERS	AP-89-24-4157-F	FAR	2100 630914	FACTORY	YES	SENDIX MO 1041982-3-A
FAILURE MODE-ERRATIC OPERATION. THE VOLTAGE CONTROLLED OSCILLATOR FAILED WHILE ITS TOP PACKAGE WAS UNDERGOING FINAL ELECTRICAL TESTS, BY INDICATING AN INTERMITTENT OUTPUT. THE FAILURE COULD NOT BE DUPLICATED IN ANALYSIS. HOWEVER, THE BROKEN GROUND RETURN LEAD FOR THE V-R TUBE FILAMENT PROBABLY CAUSED INTERMITTENT OPERATION.						
CORRECTIVE ACTION-VENDOR INSPECTION PERSONNEL WERE REQUESTED TO USE EXTREME CAUTION WHEN CORRELATING SEAL. DRESS AN D HANDLING TUBE LEADS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSODUC DIFFERENTIAL AMPLIFIER CAPACITOR ERS	AP-89-24-4107	FAR	1350 830913	FACTORY	YES	SENDIX MO
FAILURE MODE-OUT OF SPECIFICATION. THE LEADING EDGE OF CHANNEL 12 100 PERCENT CALIBRATION PULSE WAS EXCESSIVELY ROUNDED. THE FAILURE WAS CAUSED BY A TEMPERATURE SENSITIVE CAPACITOR IN THE DIFFERENTIAL AMPLIFIER.						
CORRECTIVE ACTION-TIME CAPACITOR WAS REPLACED. ALSO, THE VENDOR INDICATED EXTENSIVE IMPROVEMENTS IN MANUFACTURING TECHNIQUES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSODUC DIFFERENTIAL AMPLIFIER POTENTIOMETER ERS	SP-89-24-4120-F	FAR	830913		YES	MAYBERRY MO TRA-32
FAILURE MODE-OUT OF SPECIFICATION. THE UNIT WAS OBSERVED TO SHIFT IN OUTPUT 180 MILLIVOLTS IN ONE MINUTE. THE FAILURE WAS CONFIRMED AND ATTRIBUTED TO 2 CAUSES. 1.) POOR DESIGN OF UNIT, IN THAT 1 OHM CHANGE ON THE 1000 OHM OUTPUT POT						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP TIME	PRI DIP OTH	VENDOR NAME VENDOR PART NO	
	ENTIONETER CAUSED 67 MILLIVOLT CHANGE IN OUTPUT. 2) SPECIFICATION CONTROL DRAWING ON UNIT REQUIRES STABILITY OF 150 M ILLIVOLTS DUE TO DRIFT; EOP 88-330.86 WHICH SETS UP THE TOP PACKAGE ALLOWS ONLY 100 MV OF DRIFT.						003304
	CORRECTIVE ACTION-VENDOR INITIATED A DESIGN CHANGE FOR UNITS 8/N 129 AND ON. FOR THE EXISTING UNITS THE EOP WAS CHA NGED TO ALLOW 150 MV OF DRIFT, WHICH AGREES WITH THE SPECIFICATION CONTROL DRAWING.						
	INSTRUMENTATION-A/B FAR-8P-89-24-4182 FAR 87-01848-7 830912 FACTORY YES COLVIN TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER NO 401-A-10-78						004830
	FAILURE MODE-STRUCTURAL. THE TRANSDUCER (MEASUREMENT PAD) FAILED WHEN A LEAK WAS OBSERVED AT THE LOCATING PIN. THE PIN HAD BEEN FORCED INTO THE CASE BREAKING THE GRAZE AT ITS BASE.						
	CORRECTIVE ACTION-VENDOR CHANGED THE DESIGN OF THE PIN JOINT. THE HOLE IS NOW DRILLED ONLY PARTIALLY THRU THE CASE. THE PIN IS BOTTOMED IN THE HOLE BEFORE SILVER BLAZING FROM THE OUTSIDE.						
	INSTRUMENTATION-A/B LV-99-24-4183-F FAR 93-01180-3 109D FACTORY YES MAYBERRY TELEMETRY SET A/B TRANSDUC AMPLIFIER 630912 NO TRA-52						001845
	FAILURE MODE-FAIL DURING OPERATION. THE DIFFERENTIAL AMPLIFIER HAD NO OUTPUT ON CHANNEL-A. THE DIFFERENTIAL AMPLIFI ER FAILURE WAS CAUSED BY FAILURE OF TRANSISTORS 8-9 AND 8-10 FROM MISAPPLICATION OF VOLTAGES OR BY A SHORT CIRCUIT F THE OUTPUT.						
	CORRECTIVE ACTION-MO CORRECTIVE ACTION TAKEN.						
	INSTRUMENTATION-A/B 8P-99-24-4188-F FAR 630912 FACTORY YES GDC TELEMETRY SET AND TRANSDUC REGULATOR, ELECTRICAL-TRANSISTOR 68-11117-1 YES						001803
	FAILURE MODE-FAIL DURING OPERATION. THE REGULATOR ASSEMBLY FAILED DURING EOP 930.733 WHEN RESISTOR R-8 AND TRANSIST OR 8-1 EXPLODED. ANALYSIS SHOWED THAT EXCESSIVE CURRENT THROUGH THE JUNCTIONS OF TRANSISTOR 8-1 CAUSED OVERHEATING, AND PRODUCED SHORT CIRCUITS IN THE TRANSISTOR. THE CAUSE OF THE OVERHEATING WAS NOT DETERMINED. THE FAILURE MAY HAVE BEEN CAUSED BY A DEFECTIVE TRANSISTOR OR BY AN IMPROPER SETTING OF THE LOAD BANK DURING TESTING.						
	CORRECTIVE ACTION-PERSONNEL HAVE BEEN INSTRUCTED TO USE CARE WHEN TESTING THE REGULATOR ASSEMBLY.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
800-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE	TIME	OTH	VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-SP-89-24-4161 FAR-SP-89-24-4161 FAR-SP-89-24-4161	87-01843-7	830912	FACTORY	YES	COLVIN NO 401-A-10-79
<p>FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER (MEASUREMENT PAP) FAILED WHEN A STATIC ERROR OF 3.286 PERCENT WAS OBSERVED AT 80 PSIA. FAILURE WAS THE RESULT OF 1) WIPER COUNTERBALANCING NUT WAS NOT CEMENTED TO ITS STUD, 2) A COLD SOLDER JOINT ATTACHED THE WIRE AT THE HI-PRESSURE END OF THE MANIFOLD TO THE RESISTANCE WINDINGS AND, 3) THE WIPER CAME AHEAD OF THE LOWEST END OF THE COLD SOLDER JOINT AT APPROX 9.8 V OUTPUT.</p>						
<p>CORRECTIVE ACTION-VENDOR CORRECTED CONDITIONS THAT ALLOWED TRANSDUCER TO BE SHIPPED WITH AN UNCEMENTED COUNTERBALANCE NUT. VENDOR IMPROVED QC OF SOLDERING PROCESS AND A CERTIFIED NASA INSTRUCTOR NOW TRAINS SOLDERING PERSONNEL.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PPT-TP-69F-1793-1 PPT-TP-69F-1793-1	UTP-GUAL/PPT UTP-GUAL/PPT	830912	FACTORY	NO	MIANCAO NO P2-4108-13
<p>FAILURE MODE-OUT OF TOLERANCE. DURING INITIAL PROOF CYCLE, UNIT STATIC ERROR EXCEEDED 1 PERCENT AT 3.0 AND 3.5 PSID. FAILURE FOUND DUE TO TEST EQUIPMENT CALIBRATION ERROR (S/N 305-0016).</p>						
<p>CORRECTIVE ACTION-NONE REQUIRED ON SPECIMEN. TEST EQUIPMENT REVALIDATED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	PPT-TP-69F-1793-1 PPT-TP-69F-1793-1	UTP-GUAL/PPT UTP-GUAL/PPT	830912	FACTORY	NO	MIANCAO NO P2-4108-13
<p>FAILURE MODE-OUT OF TOLERANCE. DURING INITIAL PROOF CYCLE, UNIT STATIC ERROR EXCEEDED 1 PERCENT AT 3.0 AND 3.5 PSID. FAILURE FOUND DUE TO TEST EQUIPMENT CALIBRATION ERROR (S/N 305-0016).</p>						
<p>CORRECTIVE ACTION-NONE REQUIRED ON SPECIMEN. TEST EQUIPMENT REVALIDATED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR ERS	A-29-24-4140-C A-29-24-4140-C	FAR FAR	830910	FACTORY	YES	NO
<p>FAILURE MODE-FAILED DURING OPERATION. R/S POTENTIOMETER COULD NOT BE ADJUSTED. THE FAILURE WAS NOT CONFIRMED, HOWEVER, ANALYSIS SHOWED ADJUSTMENT OF R/S PRODUCED NO CHANGE IN THE DEMODULATOR OUTPUT. CAUSE OF THE FAILURE WAS UNDETERMINED.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							000312
CORRECTIVE ACTION-NONE. ANALYSIS TERMINATED BECAUSE MANUFACTURING CONTRACT CONTAINED NO COVERAGE FOR FAILURE ANALYSIS. ALSO THE PART NUMBER WAS FOUND TO BE OBSOLETE WITH NO FURTHER USE.							000312
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR WIRING CRS	A-99-24-4148-F A-99-24-4148-F 87-12369-9	FAR 87-12369-9	030909	FACTORY	R-45FIFTH-DEMEASIO C-12M 3		000310
FAILURE MODE-SHORT (ELECT). NEGATIVE OUTPUT GATE WAS ERRATIC. FAILURE WAS CAUSED BY A LOOSE BRUSH WIRE WHICH CAUSED AN INTERMITTENT SHORT CIRCUIT OF THE COMMUTATOR SEGMENTS.							
CORRECTIVE ACTION-NONE. WHEN THE UNIT WAS RETURNED TO THE VENDOR FOR EVALUATION, THE WIPER ARM COULD NOT BE FOUND.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER CRS	PPT-TP-89F-1705-1 PPT-TP-89F-1705-1	UTP-EQUAL/PPY 87-01552-13	030909	FACTORY	YES MIANCKO NO PR-4106-13		000421
FAILURE MODE-LEAK-EXTERNAL. DURING -85 DEG F, TEST UNIT EXHIBITED EXTERNAL LEAKAGE. (8/N 303-0014).							
CORRECTIVE ACTION-VENDOR REDESIGNED AND REMOVED ALL UNITS. MODIFICATION CONSISTED OF SUBSTITUTING SILVER TINNED COPPER WIRE FOR COPPER WIRE AND A CHANGE IN SOLDERING METHOD.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSVERTER, DIODE CRS	SP-99-24-4135-F SP-99-24-4135-F	FAR 87-12369-9	030907	FACTORY	YES NO		000306
FAILURE MODE-OPEN (ELECT). THE UNIT HAD 175 MV OF NOISE ON THE PLUS 32 VDC OUTPUT. 150 MV OF NOISE IS THE MAXIMUM ALLOWED. FAILURE WAS CONFIRMED AND WAS FOUND TO BE CAUSED BY AN OPEN DIODE (8R-5) TYPE 1N645. IT WAS ALSO DETERMINED THAT THE FAILURE OCCURRED DURING FABRICATION.							
CORRECTIVE ACTION-FABRICATION TECHNIQUES WERE REVIEWED AND THE ASSEMBLER WAS URGED TO USE EXTREME CAUTION WHEN INSERTING GLASS DIODES INTO CIRCUIT BOARD.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONVERTER-COMMUTATOR CRS	SP-99-24-4180-F SP-99-24-4180-F	FAR 87-12369-9	030904	WTR	YES UNITED ELECTRO NO DYNAMICS		
FAILURE MODE-CONTAMINATION. THE SIGNAL CONVERTER FAILED WHEN THE MASTER PULSE OF CHANNEL 15 WAS DISCOVERED TO BE SP LITTING. THE FAILURE WAS NOT CONFIRMED. HOWEVER, A PARTICLE IN THE COMMUTATOR COULD HAVE BEEN LOOSED IN SUCH A POSITION AS TO INTERRUPT CONTINUITY BETWEEN THE COMMUTATOR AND THE WIPER. THE PARTICLE COULD HAVE BEEN DISLOOSED DUE TO V							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
ISRATION DURING SHIPMENT.						
CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	CT-99-24-248-P CONVERTER-RESISTOR R-6	FAR 27-12222-3	1280 630903	FACTORY	YES 6D/C NO	001946
FAILURE MODE-OUT OF TOLERANCE. THE AC-DC CONVERTER REPORTEDLY FAILED WHEN OUTPUT VOLTAGE AT 700 CPS WAS 0.475 VOLT DC. WHERE SPECIFICATION TOLERANCES REQUIRED 0.800 PLUS OR MINUS 0.004 VOLT DC. FAILURE WAS CONFIRMED. OSCILLATION WAS CAUSED BY RESISTOR R-6 BEING OPEN CIRCUITED, ALLOWING AN IMPROPER FEEDBACK SIGNAL. RESISTOR R-6 WAS OPEN CIRCUITED BECAUSE OF FAILURE TO SOLDER THE RESISTANCE WIRE AT THE TERMINAL AT ONE END INSIDE OF THE RESISTOR.						
CORRECTIVE ACTION-REQUEST HYCOR DIVISION OF INTERNATIONAL RESISTANCE, TO REVISE MANUFACTURING, QUALITY-CONTROL, AND ACCEPTANCE PROCEDURES ASSOCIATED WITH THE SOURCE PART NUMBER 27-12222-3, 100 KILOHM, PLUS OR MINUS 1 PERCENT RESISTOR TO PREVENT REOCCURRENCE OF THIS SAME FAILURE MODE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	CT-99-24-248-P STRAIN-GAGE CIRCUIT BOARD-RESISTOR R-30	FAR 35-13687-5	1280 630900	ETN	YES 6D/C NO	001950
FAILURE MODE-STRUCTURAL. THE STRAIN GAGE CIRCUIT BOARD WAS FOUND TO BE INTERMITTENT. FAILURE WAS CONFIRMED. RESISTOR R-30 WAS FOUND TO HAVE A CRACKED RESISTIVE ELEMENT. THIS CRACKED RESISTIVE WIRE WAS BUILT INTO THE RESISTOR DURING MANUFACTURE. NO CONCLUSION CAN BE DRAWN REGARDING THE TELEMETRY PACKAGE FAILURE SINCE THE CIRCUIT BOARD WAS NOT TESTED ON A SYSTEMS LEVEL.						
CORRECTIVE ACTION-THE RESISTOR MANUFACTURER, C B COMPONENT INC., SHOULD BE NOTIFIED OF THIS FAILURE AND SHOULD BE REQUESTED TO REVIEW QUALITY-CONTROL PROCEDURES FOR THIS ITEM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	37-99-24-4096-F CALIBRATOR RELAY	FAR 7-12222-9	630286	FACTORY	YES NO	001950
FAILURE MODE-ERRATIC OPERATION. THE IN-FLIGHT CALIBRATOR FAILED WHEN THE POSITIVE CALIBRATE PULSES FOR ONE CHANNEL WERE MISSING. FAILURE WAS CONFIRMED. THE NORMALLY CLOSED CONTACTS 2 AND 9 OF RELAY R-3 FAILED TO ENERGIZE BECAUSE THE CONTACT POLES HAD CHANGED POSITIONS WITH RESPECT TO THE POLE ACTUATOR. THE POLES WERE ALSO SENT EITHER DURING RELAY ASSEMBLY BY THE VENDOR OR DURING INSTALLATION IN THE CALIBRATOR BY 60/A.						
CORRECTIVE ACTION-ASTRONAUTICS INITIATED DESIGN CORRECTIVE ACTION BY RECOMMENDING THE SLASH BASE BE KEPT TO THE RE						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	LAY CASE TO PREVENT INADVERTENT MISINDEXING ON SUBSEQUENT ROTATION OF THE CLASS BASE. VENDOR REPLIED THAT THE DAMAGE OCCURRED WHEN THE RELAY WAS DISASSEMBLED. NO FURTHER CORRECTIVE ACTION TAKEN.						092825
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-TUBE ERS	SP-99-24-4137-F TELEMETRY SET AND TRANSDUC OSCILLATOR-TUBE ERS	FAR 7-01488-881	030828	FACTORY	YES NO		093803
	FAILURE MODE-DRIFT. FREQ WAS DRIFTING UPWARD. FAILURE CAUSED BY UNSTABLE MODULATOR TUBE.						
	CORRECTIVE ACTION-ROUND TELEMETRY CANISTER REPLACED WITH NEW LIGHTWEIGHT PACKAGE USING SOLID STATE OSCILLATOR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SP-90-24-4180-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR 7-01723-11	030828	PHR	YES NO	YES BOURNS NO 42013-0-50-732	092808
	FAILURE MODE-STRUCTURAL. OUTPUT DID NOT GO TO ZERO. FAILURE ATTRIBUTED TO EXPOSURE TO PRESSURE IN EXCESS OF DESIGN LIMIT WHICH RESULTED IN PERMANENT PRESSURE ELEMENT DISTORTION.						
	CORRECTIVE ACTION-PERSONNEL ADVISED TO TAKE EXTRA PRECAUTIONS WHEN PRESSURIZING A SYSTEM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	CT-99-24-237 TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	FAR 27-01332-123	1180	FACTORY	YES NO	YES BENDIX NO 1089003-12-C	091569
	FAILURE MODE-OUT OF SPECIFICATION. THE SUBCARRIER OSCILLATOR FAILED WHEN UNIT WAS TESTED PER CENTAUR TEST PROCEDURE 35 MAXIMUM OUTPUT OBTAINED DURING TEST WAS 8.5 VOLTS RMS. THE SPECIFICATION REQUIREMENT ON PAGE 7, PARAGRAPH 4.4E, CALLS FOR AN OUTPUT AMPLITUDE FROM CHANNEL-12 OF 3 VOLTS RMS AT 10.5 KILOCYCLES. THE FAILURE WAS NOT CONFIRMED. THE MOST PROBABLE CAUSE OF THE REPORTED FAILURE WAS EXCESSIVE LOADING FROM IMPROPER SETUP OF TEST EQUIPMENT USED.						
	CORRECTIVE ACTION-CENTAUR TEST PROCEDURE 35 SHOULD BE REVISED TO PROVIDE A MORE DETAILED DIAGRAM OF THE REQUIRED TEST SETUP. THE USE OF A CATHODE FOLLOWER TUBE CIRCUIT, BETWEEN THE UNIT AND THE TEST EQUIPMENT SHOULD BE SPECIFIED IN THE TEST PROCEDURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER, ELECTRICAL-CAPACITOR ERS	LV-99-24-4210-F TELEMETRY SET AND TRANSDUC FILTER, ELECTRICAL-CAPACITOR ERS	FAR 7-11393-8	2800	FACTORY	YES NO		
	FAILURE MODE-STRUCTURAL. THE BANDPASS FILTER FAILED IN THE BACKUP TELEMETRY CANISTER DURING PRODUCTION VIBRATION WHEN THE CHANNEL 3 OUTPUT VOLTAGE DRIFTED APPROXIMATELY 50 PERCENT AND THE 400 CPS SINE WAVE WAS DISTORTED. THE FAILURE IS ATTRIBUTED TO FLEXING OF THE TANTALUM CAPACITOR LEADS DURING VIBRATION.						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	9301850 PRESSURE TRANSDUCER	UTP-EQUAL/PPT 68-01003-39	630827	6D/C	YES	BOURNS NO 2007371707
	<p>FAILURE MODE-OUT OF SPECIFICATION. DURING THE RESOLUTION TEST ON 27 AUGUST 1963, 0.6 PERCENT OF THE 470 STEPS EXCEEDED 0.83 PERCENT. ALLOWABLE TOLERANCE IS . PERCENT OF THE TOTAL STEPS EXCEEDING 0.23 PERCENT RESOLUTION. TESTING CONTINUED BECAUSE THIS IS NOT OUT OF SPEC WHEN TEST EQUIPMENT READ OUT ERROR IS CONSIDERED. ON 4 SEPTEMBER 1963, DURING THE PROOF CYCLE WHICH FOLLOWS THE SHIPPING SHOCK TEST, THE MAXIMUM ERROR WAS MINUS 1.3 PERCENT OF FULL SCALE VOLTAGE RATIO. THIS IS OUT OF TOLERANCE. THE SHIPPING SHOCK REQUIREMENT WAS DELETED AS A TEST REQUIREMENT AND TESTING CONTINUED. ON 11 SEPTEMBER 1963, AFTER 12-012 CYCLES OF LIFE TEST, THE UNIT WAS BEING CONNECTED TO CONTINUE CYCLING AND THE 10 VOLT EXCITATION VOLTAGE WAS ACCIDENTALLY APPLIED BETWEEN PIN A AND PIN B CAUSING EXCESSIVE CURRENT FLOW, BURNING OUT THE ELEMENT.</p>					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	9301850 OSCILLATOR	7-01460-039	630827	FACTORY	YES	BOURNS NO TOE-31
	<p>CORRECTIVE ACTION-THE UNIT WAS REJECTED ON IR NUMBER 930199.</p>					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	9301850 OSCILLATOR	7-01460-039	630827	FACTORY	YES	BOURNS NO TOE-31
	<p>FAILURE MODE-OUT OF SPEC. THE OSCILLATOR FAILED IN THE NEXT ASSEMBLY WHEN THE DEVIATION OUTPUT VOLTAGE WAS 0.1 VOLT. IT SHOULD HAVE BEEN 2.05 VOLTS PLUS OR MINUS 5 PERCENT. FAILURE OF THE OSCILLATOR WAS NOT CONFIRMED. THE MOST LIKELY CAUSE OF THE OSCILLATOR FAILING WAS THAT IT WAS TRIGGERED INTO OPERATION DUE TO THE SHORT TIME BETWEEN FILAMENT A AND C PLATE VOLTAGE APPLICATION.</p>					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	9301850 OSCILLATOR	7-01460-039	630827	FACTORY	YES	BOURNS NO TOE-31
	<p>CORRECTIVE ACTION-GOC DESIGN GROUPS REVIEWED THE OSCILLATOR FILAMENT AND PLATE VOLTAGE TIME DELAY REQUIREMENTS. THE 30-SECOND TIME DELAY WAS FOUND SUFFICIENT.</p>					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	9301850 OSCILLATOR	7-01460-039	630827	FACTORY	YES	BOURNS NO TOE-31
	<p>FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED WHEN IT COULD NOT BE ADJUSTED TO WITHIN THE HIGH FREQUENCY TOLERANCE OF EOP 930.329.10. FAILURE COULD NOT BE CONFIRMED.</p>					

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							091026
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER POWER SUPPLY, CAPACITOR 55-13840-9 ERS							091661
FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER POWER SUPPLY WOULD BECOME INTERMITTENT AFTER A SHORT WARMUP. THE FAILURE WAS CONFIRMED. THE FAILURE WAS CAUSED BY AN INTERNAL BROKEN CONNECTION IN CAPACITOR C-3 OF THE CHOPPER CIRCUIT. THE CAPACITOR IS A DEARBORN 0.1 MICROFARAD CAPACITOR.							
CORRECTIVE ACTION-THE CAPACITOR MANUFACTURER HAS ADDED CONTROLS TO REGULATE TIME AND HEAT USED TO BOND THE PISTAIL TO THE WINDING IN ORDER TO IMPROVE MINUFACTURE OF THE CAPACITOR.							092317
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS							
FAILURE MODE-ELECTRICAL OPEN. DURING THE RESOLUTION TEST, IT WAS DISCOVERED THAT THE ELEMENT WAS OPEN ELECTRICALLY. THE EXACT CAUSE OF FAILURE IS UNKNOWN. IT MAY HAVE BEEN CAUSED BY AN IMPROPER TEST SETUP.							
CORRECTIVE ACTION-THE UNIT WAS REJECTED ON IR NUMBER 900867.							092317
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ABSOLUTE PRESSURE SWITCH ERS							
FAILURE MODE-CONTAMINATION. THE RESISTANCE BETWEEN ELECTRICAL CONNECTOR PINS A AND C WAS 18 OHMS (5.8 OHMS MAXIMUM IS ALLOWED). FAILURE CAUSED BY CONTAMINANT LAYER BUILDUP ON THE RESISTANCE MANDREL							
CORRECTIVE ACTION-THE VENDOR CHANGED THE CLEANING PROCESS.							092317
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR GEAR MOTOR ERS							
FAILURE MODE-CONTAMINATION. THE UNIT WAS REJECTED WHEN AN ABRUPT INCREASE IN SPEED FROM 10.0 RPS TO 10.43 RPS WAS OBSERVED. EXACT FAILURE MODE COULD NOT BE CONFIRMED, HOWEVER, THE MOTOR SPEED WAS EXCESSIVE. THE MOTOR GOVERNOR CONTACTS WERE OUT OF ADJUSTMENT DUE TO METAL MIGRATION AND THE FORMING OF PITS ON THE GOVERNOR CONTACTS.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-GOVERNOR CONTACTS WERE BURNISHED AND RESET. VENDOR WAS REQUESTED TO HAVE A DESIGN REVIEW OF THE MOTOR. (REF. PAR SP-88-24-3877).						888266
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER POWER SUPPLY ERR	SP-88-24-4077-F	PAR 88-13356-605	1330	FACTORY	YES NO		888177
FAILURE MODE-OUT OF TOLERANCE. DURING FACTORY TELEMETRY SYSTEM TESTING, PREFLIGHT CALIBRATIONS WERE NOT SUFFICIENT FOR USE AS ZERO AND 100 PERCENT CALIBRATIONS FOR RF 1, CHANNELS 4 THROUGH 10. CALIBRATION PULSES WERE TOO NARROW. FAILURE WAS CONFIRMED. THE PULSE WIDTH WAS 25 MILLISECONDS WHEN 90 TO 100 MILLISECONDS WAS EXPECTED. CAUSE WAS ATTRIBUTED TO SPIKING GENERATED BY THE TRANSDUCER POWER SUPPLY, REDUCING THE PULSE WIDTH OF THE INFLIGHT CALIBRATOR.							
CORRECTIVE ACTION-REQUESTED A FILTER BE ADDED TO THE INPUT CIRCUIT OF THE TRANSDUCER POWER SUPPLY. ALSO RECOMMENDED THE INFLIGHT CALIBRATOR PULSE WIDTH BE CHECKED AT A COMPONENT LEVEL AND AT A PACKAGE LEVEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERR	NP-99-24-4118-F	PAR 7-01731-9	830/23	FACTORY	NO NO		888184
FAILURE MODE-OUT OF TOLERANCE. REPORTED ON TWO TRANSDUCERS. THE TRANSDUCERS WERE WITHIN THE ERROR BAND REQUIREMENTS. THE FAILURES WERE REPORTED BECAUSE CALIBRATION PERSONNEL WERE NOT AWARE OF THE 2 PERCENT EXCLUSION AT EACH END OF THE PLOT.							
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. GD/C CALIBRATION PERSONNEL WERE REINSTRUCTED OF THE ERROR BAND LIMITATIONS AND REJECTION CRITERIA.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERR	A-49-24-4078-C	PAR 7-01732-3	830/23	FACTORY	YES NO		888183
FAILURE MODE-OUT OF TOLERANCE. THE UNITS ERROR BAND WAS PLUS 0.41 AND MINUS 1.08 PERCENT COMPARED TO PLUS OR MINUS 0.9 PERCENT REQUIRED.							
CORRECTIVE ACTION-NONE SINCE REL MEMO 83-81-171 DIRECTED THAT FAILURE ANALYSIS ACTIVITIES BE MINIMIZED ON ATLAS WEA POW TELEMETRY SYSTEMS.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS	SP-99-24-4118-F	FAR 27-01386-39	630621	FACTORY	YES	SERVONIC NO	893116
FAILURE MODE-OUT OF SPECIFICATION. TRANSDUCER EXHIBITED STATIC ERROR OF A MINUS 2.24 PERCENT. ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT. FAILURE IS ATTRIBUTED TO LOSS OF CORRECT REFERENCE PRESSURE DUE TO THE REFERENCE VOLUME BECOMING PRESSURIZED.							
CORRECTIVE ACTION-RAR SP-99-24-8011 RECOMMENDING THAT THE VENDOR BE INFORMED OF THE FAILURE AND OF THE OVERPRESSURIZED CASE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS	SP-99-24-4147-F	FAR 7-01720-3	2850 630621	FACTORY	YES	SERVONIC NO	891003
FAILURE MODE-STRUCTURAL. UNIT EXHIBITED A POSITIVE STATIC ERROR THROUGHOUT THE OPERATING RANGE. FAILURE ATTRIBUTED TO OVER PRESSURIZATION AND ROUGH HANDLING.							
CORRECTIVE ACTION-RAR SP-99-24-9056 INFORMED RESPONSIBLE GO/C PERSONNEL OF THE ANALYSIS RESULTS. WITH CAUTION EMPHASIZING THE SERIOUSNESS OF ROUGH HANDLING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS	A-99-24-4141-F	FAR 7-01720-3	630621	FACTORY	YES	SOURNS NO	890926
FAILURE MODE-CONTAMINATION. THREE TRANSDUCERS WERE OUT OF TOLERANCE ON ERROR BANDS AS REPORTED BY STANDARD3 LABORATORY. THESE UNIT FAILURES WERE ATTRIBUTED TO COTTON FIBERS FOUND WITHIN THE UNIT AND TO POTENTIOMETER SHORTED TURNS RESULTING FROM WEAR.							
CORRECTIVE ACTION-VENDOR ACTION HAS REMOVED THE USE OF COTTON FIBER PIPE CLEANERS FROM HIS OPERATION. SHORTED TURNS WERE CONSIDERED CAUSED BY NORMAL SERVICE WEAR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCERS	SP-99-24-4115-F	FAR 7-01731-3	630621	FACTORY	YES	SOURNS NO	
FAILURE MODE-CONTAMINATION. ERRATIC OPERATION POSSIBLY CAUSED BY A LIGHT INTERFERENCE ON THE ELEMENT DUE TO A FILM ON THE ELEMENT. THIS FILM FORMS AS A RESULT OF THE VENDOR RINSING THE ELEMENT WITH CITRIC ACID. EXERCISING POSSIBLY MORE OFF THE FILM.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	J9D2109 3P-A9-24-6037F	UTP-BUAL/PPT 89-01004-28	830813	FACTORY	YES	BOURNS NO 8082803001	890784
FAILURE MODE-STRUCTURAL. DURING THE INITIAL ACCEPTANCE CALIBRATION, THE ERROR WAS MINUS 3.78 PERCENT. THE FAILURE WAS CAUSED BY A METAL FOIL COVERING ON THE SENSING HEAD (FORMING A HERMETIC SEAL) DETACHING AND ACTING LIKE A SECOND DIAPHRAM.							
CORRECTIVE ACTION-AN EPOXY SEAL WAS SUBSTITUTED FOR THE METAL FOIL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONVERTER COMMUTATOR ERS	8P-A9-24-6037F 3P-A9-24-6037F	FAR 27-12642-803	2240 830813	FACTORY	YES	UNITED ELECTRO NO DYNAMICS 14184	893704
FAILURE MODE-CONTAMINATION. INTERMITTENT NOISE OF UP TO 10 PERCENT INFORMATION BANDWIDTH WAS REPORTED ON SUBCARRIER CHANNEL 15 WHEN THE ALLOWABLE LIMIT IS 5 PERCENT. THE 10 PERCENT 18V NOISE LEVELS ON CHANNEL 15 WERE NOT CONFIRMED. VISUAL EXAMINATION OF THE COMMUTATOR DID REVEAL NUMEROUS SMALL CONTAMINANT PARTICLES WHICH PROBABLY CAUSED THE NOISE ORIGINALLY RECORDED.							
CORRECTIVE ACTION-RAR 8P-A9-24-398F WAS ISSUED REQUESTING DC COMMUTATORS USING GLOBE MOTORS BE PURGED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ABSOLUTE PRESSURE TRANSDUCER ERS	8P-A9-24-6112-F 3P-A9-24-6112-F	FAR 7-01731-9	2240 830813	FACTORY	YES	BOURNS NO	891002
FAILURE MODE-OUT OF TOLERANCE. UNITS OUTPUT BANDWIDTH ERROR WAS 3.5 PERCENT, MAXIMUM DEVIATION IS PLUS OR MINUS 1.0 PERCENT. ERROR CAUSE WAS ATTRIBUTED TO EXCESSIVE CLEARANCE BETWEEN BOURDON TUBE SLOTTON AND THE PHENOLIC BLOCK.							
CORRECTIVE ACTION-RAR 8P-A9-24-8004 RECOMMENDING REVIEW OF MANUFACTURING AND QUALITY CONTROL TECHNIQUES TO PREVENT FAILURE OF DE RECURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR POTENTIOMETER ERS	A-59-24-4087-F 3P-A9-24-4087-F	FAR 88-01174-115	830812	FACTORY	YES	BENDIX NO 1082141-96	
FAILURE MODE-OPEN (ELECT). THE SUBCARRIER OSCILLATOR FAILED DURING FACTORY CHECKOUT WHEN THE AMPLITUDE COULD NOT BE ADJUSTED. FAILURE WAS CONFIRMED. ANALYSIS SHOWED OUTPUT AMPLITUDE WAS 14 VOLTS PEAK TO PEAK. CAUSE WAS ATTRIBUTED TO AN OPEN CIRCUIT IN OUTPUT POTENTIOMETER II-19 AT APPROXIMATELY THE 8000 OHM POINT. INVESTIGATIVE DAMAGE TO THE WINDING PROMISSED EXACT LOCATION OF THE OPEN CIRCUIT.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PR1 OTH	VENDOR NAME VENDOR PART NO	
							891031
	CORRECTIVE ACTION-SINCE THE EXACT CAUSE OF THE FAILURE COULD NOT BE FOUND, MEANINGFUL CORRECTIVE ACTION CANNOT BE Y AKEN.						
INSTRUMENTATION-A/B	A-99-24-4104-F	FAR	830811	FACTORY	YES		899480
TELEMETRY SET AND TRANSDUC	LINER FILTER ASSEMBLY	87-12300-1			NO		
ERS							
FAILURE MODE-ERRATIC OPERATION. UNDESIRED MODULATION WAS INDICATED IN CHANNEL B. THE FAILURE WAS NOT CONFIRMED. NOW EVER, UNAUTHORIZED REPAIR OF THE UNIT HAD BEEN MADE AND THE WRONG TYPE SCREWS HAD BEEN REPLACED IN THE BASE PLATE.							
CORRECTIVE ACTION-THE CORRECT SCREWS WERE INSTALLED IN THE BASE PLATE.							
INSTRUMENTATION-A/B	A-89-24-4102-C	FAR	830810	FACTORY	YES	BENDIX	895283
TELEMETRY SET AND TRANSDUC		87-12762-809			NO		
ERS							
FAILURE MODE-OUT OF TOLERANCE. TELEPAK FAILED IN FINAL CHECKOUT AREA WHEN CHANNEL A, SEGMENT 7 READ NEGATIVE. THE P ROFLER READING IS 50 PERCENT OF THE REFERENCE VOLTAGE. FAILURE ANALYSIS WAS NOT PERFORMED. INSTEAD, THE TELEPAK WAS R EMOVED PER BLUEPRINT. FOLLOWING REMOVAL THE REPORTED FAILURE DISAPPEARED.							
CORRECTIVE ACTION-THE TELEPAK WAS REMOVED PER BLUEPRINT.							
INSTRUMENTATION-A/B	FAR-NF-99-23-4075C	FAR	830809	FACTORY	YES	COLVIN	890728
TELEMETRY SET AND TRANSDUC	PRESSURE TRANSDUCER	87-01243-7			NO	401-A-10-75	
ERS							
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER FAILED WHEN OUTPUT VOLTAGE WAS ABOVE SPECIFICATION LIMITS AT AN INPUT PRESSURE OF 20 PSIA. ANALYSIS WAS CANCELLED BY ATLAS WEAPONS SYSTEM PROJECT OFFICE STATING, TRANSDUCER FAILURES IN THE K AC-ZEUS PROGRAM ARE NOT TO BE ANALYZED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B	A403-0043/P1-6MO-01-138	COMPOSITE-FRD/DPL	136F	11	YES		
TELEMETRY SET AND TRANSDUC	TELEMETRY CANISTER		430808		NO		
ERS							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD OF 48 MINUTES WAS REQUIRED TO REPLACE RP 2 AND 3. CORRECTIVE ACTION-TELEMETRY CANISTERS REPLACED.							098513
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERR	SP-89-24-4132-C	FAR	030800	ETR	NO	BEMOIX NO 87-11241-818	098507
	FAILURE MODE-FAIL DURING OPERATION-28 VDC WAS INADVERTANTLY APPLIED TO THE 8.3 VDC CIRCUITRY. NO FAILURE ANALYSIS W AS PERFORMED SINCE FAILURE WAS CAUSED BY MISAPPLICATION OF POWER. CORRECTIVE ACTION-NONE.						098517
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	A-89-24-4139-F	FAR	030807	FACTORY	NO	BOURNS	098517
	FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE OUTPUT VOLTAGE MEASUREMENTS WERE REPORTED ON FOUR TRANSDUCERS BY STANDARDS LABORATORY. THESE PARTS WERE TESTED AND FOUND TO BE OPERATING WITHIN TOLERANCE. THE REPORTED FAILURE WAS DUE TO ERR ONEOUS CALCULATION DURING CALIBRATION. CORRECTIVE ACTION-COMMIZANT 60/C PERSONNEL WERE INFORMED OF THE RESULTS OF THIS ANALYSIS AND WERE INFORMED OF THE C ORRECT METHOD IN DETERMINING STATIC ERROR BAND.						098790
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BUSTAINER ENGINE LOG TRANSDUCER ERR	A-89-24-4036-F	FAR	2310	FACTORY	YES	ROSEMOUNT ENGR NO	098790
	FAILURE MODE-OPEN (ELECT). OPEN CONDITION INDICATED. REPORTED FAILURE NOT CONFIRMED HOWEVER A SHORT WAS FOUND IN A/ B TEMP ELEMENT. CORRECTIVE ACTION-VENDOR PERSONNEL ALERTED TO WORKMANSHIP PROBLEM. IN-PROCESS INSPECTION ESTABLISHED TO CHECK ALL B OLDER JOINTS.						

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SYSTEM: SUB-4781:IN	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PR1 VENDOR NAME OTH VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERR	SP-99-24-4083-F ERR	FAR 7-01488-881	630807	FACTORY	YES BENDIX NO TOE-31
<p>FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR FAILED WHEN IT COULD NOT BE ADJUSTED TO 31.845 PLUS OR MINUS 148 CPS WHEN -0.8 VOLT DC WAS APPLIED TO UNIT. THE FREQUENCY READINGS OBTAINED WERE FROM 31.895 TO 32.010 CPS. FAILURE WAS NOT CONFIRMED, HOWEVER. DUE TO THE WIDE FREQUENCY BANDWIDTH SLIGHT DIFFICULTY WAS EXPERIENCED IN ADJUSTING THE OSCILLATOR WITHIN SPECIFICATIONS.</p>					
<p>CORRECTIVE ACTION-NONCONFIRMATION OF THE REPORTED FAILURE WAS BROUGHT TO THE ATTENTION OF TESTING PERSONNEL.</p>					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERR	A-99-24-3553F ERR	FAR 27-01888-13	630807	FACTORY	YES BENDIX NO TOE-44
<p>FAILURE MODE- OUT OF TOLERANCE. OSCILLATOR WAS REJECTED WHEN IT DRIFTED IN EXCESS OF 16 CPS. THE TOLERANCE IS PLUS OR MINUS 9CPS. FAILURE ANALYSIS WAS TERMINATED BECAUSE THE INVESTIGATING ENGINEER APPLIED EXCESSIVE FILAMENT VOLTAGE TO THE UNIT, DAMAGING IT TO A POINT WHERE NO VALID TEST RESULTS COULD BE OBTAINED.</p>					
<p>CORRECTIVE ACTION-NONE.</p>					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR/E UNITS ERR	SP-99-24-4139-F	FAR 7-01488-881	632806	FACTORY	YES BENDIX NO 1041982-2
<p>FAILURE MODE-OUT OF SPECIFICATION. OSCILLATOR FREQUENCY DRIFTED TO 28330 CPS WHEN 28155 PLUS OR MINUS 148 CPS IS SPECIFIED. THE FAILURE WAS CAUSED BY AGING OF THE CIRCUIT COMPONENTS IN THE MODULATOR STAGE.</p>					
<p>CORRECTIVE ACTION-NEW TEST PROCEDURE FOR BURN IN OF OSCILLATOR MODULES IS BEING USED. APPROPRIATE EOP'S ARE BEING REVISED TO CALL FOR BURN IN TEST TO BE ACCOMPLISHED PRIOR TO COMPONENT TESTING OF THE TELEMETRY PACKAGE.</p>					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY, TRANSFORMER ERR	SP-99-24-4097-F	FAR 27-11941-918	43F	FACTORY	YES 1048173-2-A NO 104813-2-A
<p>FAILURE MODE-OUT OF SPECIFICATION. POWER SUPPLY FAILED DURING MISSILE CHECKOUT WHEN ITS OUTPUT EXCEEDED EOP 330.328 .50 SPECIFICATION TOLERANCES. FAILURE WAS CONFIRMED. ANALYSIS SHOWED THE 300 VOLT D-C OUTPUT MEASURED 324.8 VOLTS D-C WITH THE 990 VOLT D-C SECTION UNLOADED. MAXIMUM ALLOWABLE IS 324 VOLTS DC. HIGH OUTPUT WAS ATTRIBUTED TO TRANSFORMER T-501 WHICH HAD AN EXCESSIVE TURNS RATIO COMPARED TO THE CALCULATED TURNS RATIO REQUIRED TO OBTAIN THE CORRECT VOLTAGE OUTPUT.</p>					

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTN	VENDOR NAME VENDOR PART NO
099230						
099460						
099460	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER-CAPACITOR ERS	SP-68-24-4048-F 27-11841-910	2830 930805	FACTORY	YES	BENDIX-PACIFIC NO
	FAILURE MODE-ELECTRICAL SHORT. 28 VOLT INPUT TO PACKAGE SHORTED TO GROUND. TWO POSSIBLE CAUSES FOR FAILURE ARE DAMAGED WIRE OR FLAW IN THE INSULATION AND CONTAMINATION IN THE AREA FORMING AN ARC PATH CAUSING A SHORT CIRCUIT. PRIMARY FAILURE CAUSED DESTRUCTION OF 2 TRANSISTORS IN PWR AMPLIFIER FORMING A SHORT CIRCUIT BETWEEN 28 VOLT INPUT AND GROUND.					
091594						
091594	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	WZ-99-24-3173-F 27-01998-93	630805	FACTORY	YES	SERVONIC NO
	FAILURE MODE-STRUCTURAL. UNIT FAILED DUE TO LEAKAGE AT THE BOURDON TUBE BASE. LEAKAGE WAS CAUSED BY VOIDS AND SEPARATION IN THE BRAZED JOINT. UNIT HAD NOT BEEN LEAK TESTED.					
091010						
091010	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-18-24-4092-F 7-01780-5	137F 930805	FACTORY	YES	SERVONIC NO
	CORRECTIVE ACTION-VENDOR PERFORMED REVIEW OF BRAZING TECHNIQUES AND ARE EVALUATING A NEW FLUX COATED SILVER BRAZING ALLOY. VENDOR IS CONDUCTING EXTENSIVE INVESTIGATION WITH THEIR ENGINEERING AND QUALITY DEPARTMENTS.					
	FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE DISTORTION CAUSED BY 1. HIGH FREQUENCY RIPPLE IN THE HYDRAULIC SYSTEM CAUSING WIPER OSCILLATION ACROSS THE RESISTANCE WINDING AND 2. POTENTIOMETER WEAR DAMAGE.					
	CORRECTIVE ACTION-COP 409.30 RELEASE REQUIRING GAS PRECHARGE OF BOOSTER AND SUSTAINER HYDRAULIC ACCUMULATORS OF 250 PSI.					

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-88-24-4081-F ABSOLUTE PRESSURE TRANSDUCER	FAR 7-01731-9	1377 830803	FACTORY	YES	BOURNS	891810
FAILURE MODE-OUT OF TOLERANCE. THE UNIT DEMONSTRATED 10 PERCENT NOISE, WHEREAS 5 PERCENT NOISE IS ALLOWABLE. FAILURE WAS ATTRIBUTED TO AN OUT OF TOLERANCE CLEARANCE BETWEEN THE BOURDON TUBE AND THE VIBRATION DAMPING PLATE THUS PREVENTING SILICONE OIL DAMPING.							
CORRECTIVE ACTION-VENDOR HAS INITIATED 100 PERCENT DAMPING PLATE CLEARANCE AND VIBRATION TESTING OF UNITS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-89-24-4144-F OSCILLATOR RESISTOR	FAR 7-01884-833	830803	FACTORY	YES	SENDIX NO TOC43	893309
FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR WAS NON-LINEAR. CENTER FREQUENCY WAS 7394 CPS WHEN 7350 PLUS MINUS 20 CPS WAS EXPECTED. FAILURE WAS DUE TO EXCESSIVE SIGNAL VOLTAGE AND IMPROPER RESISTANCE VALUE FOR R-8.							
CORRECTIVE ACTION-CHECKOUT PERSONNEL WERE INFORMED OF OVERVOLTAGE. VENDOR WAS INFORMED OF THE USE OF IMPROPER COMMENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-89-24-4045-F TLM CANISTER, WIRING	FAR 27-11551-919	830803	FACTORY	YES	SENDIX NO	894487
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 14 VARIED ABOVE AND BELOW SPECIFIED LIMITS. REC 89 PRODUCED NEG GOING PULSES. FAILURE CAUSED BY IMPROPERLY SOLDERED WIRE AT TERMINAL B17.							
CORRECTIVE ACTION-NONE. COMMENTS FOR THIS PRODUCT HAVE BEEN MET HOWEVER CONDITION WAS NOTED TO ASSURE AGAINST RECURRENT ON FUTURE ASSEMBLIES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-89-24-4050 AUXILIARY SIGNAL CONDITIONER	FAR 27-18386-887	830803	FACTORY	YES	NO	
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. CHANNEL 15 SEGMENT 9, A TEMPERATURE READING, RAVE AN OUT OF TOLERANCE CC READING AND SEGMENT 23 (THE 100 PERCENT CALIBRATION PLUS) WENT DOWN TO 83 PERCENT. FAILURE WAS CAUSED BY THE SLOW DOWN LOAD RESISTOR NOT BEING IN PLACE WHEN THE TEST WAS RUN.							

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A/B SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-CAUTION TEST PERSONNEL TO ASSURE THAT PROPER CONFIGURATION IS ESTABLISHED BEFORE PERFORMING TESTS						
003640						
INSTRUMENTATION-A/B AAB3-0045/P1-SCO-02-138 TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATORS ERR						
006211						
FAILURE MODE-OUT OF TOLERANCE. SUBCARRIER OSCILLATORS FOR CHANNELS 419.9, AND 10 OF RF 1 WERE NOTED TO HAVE CENTER FREQUENCY SHIFT.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. SIGNALS WERE FROM 88 PCT TO 65 PCT 18W WHEN 50 PCT 18W WAS EXPECTED.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-RF 1 WAS REMOVED AND REPLACED. THE OSCILLATORS WERE READJUSTED IN THE TELEMETRY LAB.						
INSTRUMENTATION-A/B AAB3-0045/P1-SCO-02-138 TELEMETRY SET AND TRANSDUC COMMUTATOR-WIRING ERR						
006218						
FAILURE MODE-SHORT (ELECT). GROUNDING PISTAIL WIRE WAS ERRONEOUSLY CONNECTED TO A MEASUREMENT SIGNAL INPUT IN THE COMMUTATOR ASSEMBLY (MEAS. 1330V).						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. ARMA MEASUREMENT 1 930 V INDICATED ZERO VOLTS WHEN A NOMINAL 3 VOLTS WAS EXPECTED.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-PROBLEM WAS CORRECTED BY REMOVING THE WIRE.						
INSTRUMENTATION-A/B 84-43-24-4047-F TELEMETRY SET AND TRANSDUC OSCILLATOR ERR						
004455						
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 19 OPERATED ABOVE HIGH FREQ BAND EDGE. FIRST AT 28 PERCENT AND LATER LEVELED OFF AT 19 PERCENT. FAILURE CAUSED BY AGEING COMPONENTS IN MODULATOR STAGE.						
CORRECTIVE ACTION-ROUND CANS REPLACED BY NEW LIGHTWEIGHT CANS USING TRANSISTORIZED OSCILLATORS. BURN-IN PROCEDURE IN SITTEN. BURN-IN TO BE ACCOMPLISHED PRIOR TO COMPONENT TESTING OF TELEMETRY PACKAGE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	P/O OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONVERTER ERS	A-99-24-4098-C A-99-24-4098-C TELEMETRY SET AND TRANSDUC SIGNAL CONVERTER ERS	FAR 27-12874-808	030802	FACTORY	NO		093647
FAILURE MODE-FAILED DURING OPERATION. NO VOLTAGE OUTPUT WHEN THERE SHOULD HAVE BEEN 5 VOLTS OUTPUT. ANALYSIS WAS CA NCELED PER WAIVER DOCUMENT 03-01-002 DATED JULY 24, 1965.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ELECTRICAL FILTER ERS	A-99-24-4099 A-99-24-4099 TELEMETRY SET AND TRANSDUC ELECTRICAL FILTER ERS	FAR 27-12882-3	030731	FACTORY	YES NO		093220
FAILURE MODE-OUT OF SPECIFICATION. THE LIMITER FILTER FAILED WHEN THE OUTPUT OF CHANNEL 2, AT THE HIGH END OF THE R ESONANCE CURVE, WAS 7.2 MV (MAXIMUM ALLOWABLE IS 6.48 MV). THE FAILURE WAS CONFIRMED. CAUSE WAS ATTRIBUTED TO THE CH ANNEL 2 BANDPASS FILTER WHOSE INDUCTORS CHANGED INDUCTANCE VALUES WITH PRESSURE OR TEMPERATURE APPLIED.							
CORRECTIVE ACTION-RESULTS OF FAILURE ANALYSIS WERE SENT TO VENDOR WHO REPLIED THAT ALL FUTURE UNITS WILL BE TEMPERA TURE CYCLED AFTER FINAL PRODUCTION TESTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	P1-600-01-136 P1-600-01-136 TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	COMPOSITE-B FACT 136F 030730	ETR-11	YES NO			097841
FAILURE MODE-SHORT ELECT-A SHOR) IN THE TELEMETRY PACKAGE CAUSED INCORRECT DATA TRANSMISSION OF MEASUREMENT 1930V. PITCH RESOLVER SIGNAL. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-CANISTER REPAIRED AND REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER, WIRING ERS	SP-99-24-4098-F SP-99-24-4098-F TELEMETRY SET AND TRANSDUC FILTER, WIRING ERS	FAR 7-11333-3	030730	FACTORY	YES NO		
FAILURE MODE-OUT OF TOLERANCE. BANDPASS FILTER FAILED DURING MANUFACTURING BENCH TEST WHEN CHANNEL 3 DEVIATION VOLT AGE COULD NOT BE ADJUSTED. FAILURE WAS CONFIRMED. OUTPUT OF CHANNEL 3 WAS INTERMITTENT DURING ANALYSIS. FAILURE WAS CAUSED BY HIGH RESISTANCE ELECTRICAL CONNECTIONS WHICH WERE A RESULT OF NOT SOLDERING THE CONNECTIONS ON THE BOTTOMS OF THE CIRCUIT BOARDS.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-NONE. SINCE THE MANUFACTURE OF THIS BANDPASS FILTER NEW SOLDERING TECHNIQUES HAVE BEEN INITIATED WHICH SHOULD PREVENT THIS TYPE OF FAILURE.						891406
	INSTRUMENTATION-A/B A-19-24-4023-7 TELEMETRY SET AND TRANSDUCER TELEMETRY CANISTER ERS						891086
	FAILURE MODE-ERRATIC OPERATION. CANISTER EXHIBITED A LOW CHANNEL 14 READING AND SEGMENT 29 OF CHANNEL 14 WAS OPEN. FAILURES WERE CAUSED BY POOR WORKMANSHIP IN FINAL CHECKOUT OF THE CANISTER AND INSUFFICIENT INSPECTION AT THAT STAGE.						
	CORRECTIVE ACTION-AN AVO DATED JULY 31, 1963, WAS ISSUED TO INSPECTION SUPERVISION REQUESTING THEY IMPROVE QUALITY CONTROL IN THE FINAL CHECKOUT AREA. THE CORRECTIVE ACTION AVO WAS INCORPORATED IN INSPECTION PROCEDURES IN THE AFFECTED AREAS AND WAS PUT INTO EFFECT.						
	INSTRUMENTATION-A/B FAR-SP-19-24-4021 TELEMETRY SET AND TRANSDUCER TEMPERATURE TRANSDUCER ERS						890719
	FAILURE MODE-ELECTRICAL OPEN. THE TRANSDUCER FAILED WHEN THE RESISTANCE MEASURED 90 OHMS AT ROOM TEMPERATURE WHEN IT SHOULD HAVE MEASURED 320 OHMS. THE FAILURE WAS THE RESULT OF FRAYED INSULATION CAUSING A SHORT CIRCUIT ACROSS THE BASE RESISTANCE.						
	CORRECTIVE ACTION-THE VENDOR WAS REQUESTED TO DEVISE A MORE SUITABLE MEANS OF INSULATING WIRES. SINCE MANUFACTURE OF THIS TRANSDUCER, THE VENDOR HAS MADE IMPROVEMENTS IN TECHNIQUE AND EQUIPMENT ELIMINATING THIS PROBLEM. VENDOR WAS ALSO REQUESTED TO INVESTIGATE SPOT WELDING TO ATTACH THE WIRES TO THE ELECTRICAL CONNECTOR.						
	INSTRUMENTATION-A/B A-99-24-4100-7 TELEMETRY SET AND TRANSDUCER AMPLIFIER ELECTRONIC TUBE ERS						893286
	FAILURE MODE-OUT OF TOLERANCE RADIO FREQUENCY TELEMETRY AMPLIFIER INDICATED AN OUTPUT BETWEEN ZERO AND 4.5 WATTS WHEN EN 330.762 REQUIRES NOT LESS THAN 7 WATTS. FAILURE WAS CONFIRMED. BOTH PUSH-PULL OUTPUT TUBES WERE INOPERATIVE-V-S DUE TO A BROKEN FILAMENT AND A SLIGHTLY SASSY CONDITION. AND V-S DUE TO A BROKEN ENVELOPE SHORTED FILAMENT. DANA GED CATHODE, AND A FUSION HOLE IN THE ANODE. FAILURE OF V-S THE PRIMARY CAUSE OF FAILURE. WAS DUE TO A HIGH RESISTANCE CATHODE COATING AGGRAVATED BY EXCESSIVE CURRENT AND POWER APPLICATION.						
	CORRECTIVE ACTION-RECOMMENDED THE VENDOR INVESTIGATE THE OPERATING CONDITIONS APPLIED TO THE 6X7578 TUBES USED AND REDUCE CURRENT LEVELS AND POWER DISSIPATIONS WITHIN SAFE LIMITS.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	P3-4CO-01-197 COMPOSITE-B FACT	1970 830726	1970 830726	ETR-13	YES NO		893234
FAILURE MODE-ERRATIC OPERATION. CHANNEL 14, NEGATIVE GATE LEVEL SIGNAL, WAS BREAKING UP. THIS IS ATTRIBUTABLE TO THE TELEMETRY CANISTER.							
SYSTEM EFFECT-ERRATIC OPERATION DATA USABLE ONLY WITH EXTREME DIFFICULTY IN DECOMMUTATION.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-99-24-4048-C FAR	27-12873-801	1377 830726	FACTORY	YES NO		894464
FAILURE MODE-DRIFT. CHANNEL 4 OSCILLATOR DRIFTED OUT OF TOLERANCE.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS CANCELLED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	A-99-24-4049-C FAR	27-12873-931	1377 830726	FACTORY	YES NO		894168
FAILURE MODE-FAIL DURING OPERATION. NO POWER OUTPUT. FAILURE NOT CONFIRMED.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC HARNESS UNBILICAL PLUG ERS	A-49-24-4079-F FAR	27-68702-823	1680 830726	FACTORY	YES NO		892176
FAILURE MODE-CONTAMINATION. HARNESS ASSEMBLY FAILED WHEN AN INTERMITTENT CIRCUIT WAS OBSERVED BETWEEN PIN 43 OF UNBILICAL PLUG J-1007 AND PIN 6 OF CONNECTOR P-173 DURING CHECKOUT FOLLOWING INSTALLATION IN FINAL ASSEMBLY. FAILURE WAS CONFIRMED AND ATTRIBUTED TO LARGE QUANTITIES OF THE SEALANT PERMATEX ON THE FACEPLATES OF THE UNBILICAL PLUG. APPLICATIONS WERE MADE BY THE VENDOR DURING MANUFACTURE AND BY ASTRONAUTICS PERSONNEL DURING TWO SURVEYS.							
CORRECTIVE ACTION-RECOMMENDED APPROPRIATE FACTORY PERSONNEL BE INFORMED OF THE FAILURE MODE AND THAT STRICT ADHERENCE TO MS 81-02.5 IS NECESSARY TO PREVENT EXCESSIVE USE OF PERMATEX. VENDOR CORRECTIVE ACTION HAS BEEN TAKEN.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIV DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR MOTOR ERS	3P-A9-24-4088-F 3P-A9-24-4088-F 3P-A9-24-4088-F	FAR 3P-01171-83	2840 030176	FACTORY	YES	FIFTH DIMENSION MO N MEXD-149	091039
FAILURE MODE-OUT OF TOLERANCE. TWO COMMUNICATORS FAILED WHEN THEIR SPEEDS WERE 9.32 RPS AND 9.56 TO 9.58 RPS. A MAXIMUM SPEED OF 9.23 RPS IS ALLOWED. CAUSE ATTRIBUTED TO A DECREASE IN MOTOR AND GEARING FRICTION SINCE PRODUCTION, THUS ALLOWING THE MOTORS TO RUN FAST. THE FAILURES WERE CONFIRMED.							
CORRECTIVE ACTION-RECOMMENDED THE COMMUNICATORS, IN THEIR FINAL CONFIGURATION, BE SUBJECTED TO 30 HOURS OF OPERATION DURING PRODUCTION TO BREAK IN THE MOTOR, GEARS, ETC. ALSO RECOMMENDED THE ZENER DIODES AND TRANSISTOR BE TEMPERATURE CYCLED FOR STABILITY BEFORE BEING INSTALLED IN THE COMMUNICATORS. THE ZENER DIODES SHOULD ALSO BE SELECTED FOR A COMMUNICATOR SPEED OF 4.75 TO 4.80 RPS TO ALLOW FOR ANY ADDITIONAL SPEEDUP OF THE COMMUNICATORS WHICH MIGHT OCCUR DURING SUBSEQUENT OPERATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-A9-24-4093-F A-A9-24-4093-F A-A9-24-4093-F	FAR 7-01782-5	137F 030726	FACTORY	YES	BOURNS MO	091000
FAILURE MODE-ELECTRICAL OPEN CIRCUIT BETWEEN POTENTIOMETER WIPER PIN A AND MANORREL PINS B AND C. THE ELECTRICAL DIP CREPANCY WAS NOT CONFIRMED BUT DISASSEMBLY FOUND COTTON FIBERS WITHIN THE UNIT. COTTON PIPE CLEANERS ARE USED BY THE VENDOR IN HIS CLEANING DURING ASSEMBLY PROCEDURE.							
CORRECTIVE ACTION-THE VENDOR HAS DISCONTINUED THE USE OF PIPE CLEANERS. THIS ACTION WAS PART OF GENERAL QUALITY CONTROL IMPROVEMENT PROGRAM AT THE VENDOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ZNS	FAR-3P-09-24-4103 FAR-3P-09-24-4103 FAR-3P-09-24-4103	FAR 87-03900-033	030726	FACTORY	YES	SERVONIC MO MODEL L-64	090721
FAILURE MODE-STRUCTURAL. THE TRANSDUCER WAS REJECTED BECAUSE OF AN ERRATIC OUTPUT. THE ERRATIC OUTPUT WAS CAUSED BY A DAMAGED BRAZE JOINT IN THE TRIANGULAR STRUCTURE OF THE WIPER, REDUCING THE STRUCTURE RIGIDITY. CONTAMINANTS WERE ALSO PRESENT ON THE TRANSDUCER MECHANISM.							
CORRECTIVE ACTION-THE VENDOR WAS REQUESTED TO IMPROVE QC AND MANUFACTURING PROCESSES TO ASSURE ALL BRAZE JOINTS ARE SOUND AND TO ASSURE CLEAN ASSEMBLY.							

GENERAL DYNAMICS
CONVAIR DIVISION

16 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP TIME	PRI DIP TIME	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER TRANSDUCER ERS	FAR-SP-99-24-4064	FAR 7-01413-9	630726	FACTORY	NO	BORG-WARNER NO 9747-B	630717
FAILURE MODE-OUT OF TOLERANCE. TWO TRANSDUCERS FAILED WHEN THE OUTPUT VOLTAGE WAS 0.95 V AND 0.98 V. THE SPECIFIED VOLTAGE IS 1.01 TO 1.23.							
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. IT WAS FOUND THAT THE VOLTMETER USED FOR REJECTION OF THESE UNITS DID NOT HAVE THE ACCURACY OF VOLTMETERS USED FOR FAILURE ANALYSIS. DURING OPERATIONAL CHECKOUT, THE STDS. LAB. WILL USE MORE ACCURATE INSTRUMENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-SP-99-24-4061	FAR 27-01243-7	630726	FACTORY	YES	COLVIN NO 401-A-10-75	630716
FAILURE MODE-STRUCTURAL. TWO TRANSDUCERS FAILED WHEN THE RESISTANCE BETWEEN PINS A AND C WAS INFINITE. THE FAILURE WAS CAUSED BY THE RESISTANCE WIRES ON THE COIL BEING BROKEN. THE WIRES PROBABLY BROKE AS A RESULT OF STRESSES IMPARTED DURING MANUFACTURE.							
CORRECTIVE ACTION-VENDOR REPORTED THE WINDING OPERATION WAS REVIEWED AND WAS PERFORMING SATISFACTORILY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-SP-99-24-4065	FAR 27-01243-7	630726	FACTORY	YES	COLVIN NO 401-A-10-75	630716
FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER FAILED WHEN THE OUTPUT WAS ERRATIC. CAUSE OF THE FAILURE WAS NOT FOUND. PITTING OF THE VIPER BEARING SURFACE COULD HAVE BEEN THE CAUSE.							
CORRECTIVE ACTION-THE VENDOR WAS REQUESTED TO DISCUSS DISCREPANCIES WITH FACTORY PERSONNEL. IT WAS RECOMMENDED THAT INSPECTORS REJECT SPINDLES WITH PITTED SURFACES. VENDOR ALSO ADVISED THAT CLOSER INSPECTION WOULD BE MAINTAINED DURING ASSEMBLY OF THE SPINDLE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE SWITCH MANDEL ERS	SP-99-21-4060-F	FAR 67-44900-357	630726	FACTORY	YES	BURNS NO 71751-0-A-7-00 0	
FAILURE MODE-CONTAMINATION. ABSOLUTE PRESSURE SWITCH FAILED DURING CALIBRATION WHERE IT HAD 4 OHMS VIPER RESISTANCE WHEN THE MAXIMUM ALLOWED IS 2 OHMS. FAILURE WAS CONFIRMED. HOWEVER, AFTER REPEATED PRESSURE CYCLING THE VIPER RESISTANCE DID NOT EXCEED ONE OHM. EXACT CAUSE WAS NOT FOUND, ALTHOUGH IT APPEARS FAILURE WAS DUE TO A CONTAMINANT LAYER BUILDUP ON THE RESISTANCE MANDEL.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							003404
	CORRECTIVE ACTION-SINCE THE MANUFACTURE OF THIS UNIT, THE VENDOR HAS INITIATED A NEW CLEANING PROCESS WHICH ELIMINATES THE CONTAMINANT BUILDUP ON THE MANDEL.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	3P-99-24-4127-F 7-01783-11	FAR	830725	FACTORY	NO BOURNS	003323
	FAILURE MODE- THE UNITS ERROR BAND WAS REPORTED OUT OF TOLERANCE. FAILURE ANALYSIS FOUND NO OUT OF TOLERANCE MEASUREMENTS. THE REPORTED FAILURE WAS ATTRIBUTED TO POSSIBLE MISUSE OF CALIBRATION TECHNIQUES ON FAULTY TEST EQUIPMENT.						
	CORRECTIVE ACTION-INFORMING COGNIZANT PERSONNEL OF THE RESULTS OF THIS ANALYSIS, AND RECOMMENDING THAT FUTURE TYPICAL FAILURES BE RECHECKED PRIOR TO PART REJECTION.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE SWITCH MANDEL	3P-99-24-1070-F 27-44900-359	FAR	830725	SAN DIEG	YES BOURNS	002919
	FAILURE MODE-CONTAMINATION. ABSOLUTE PRESSURE SWITCH FAILED DURING CALIBRATION WHERE IT HAD 4 OHMS WIPER RESISTANCE WHEN THE MAXIMUM ALLOWED IS 2 OHMS. FAILURE WAS CONFIRMED. HOWEVER, AFTER REPEATED PRESSURE CYCLING THE WIPER RESISTANCE DID NOT EXCEED ONE OHM. EXACT CAUSE WAS NOT FOUND. ALTHOUGH IT APPEARS FAILURE WAS DUE TO A CONTAMINANT LATER BUILDUP ON THE RESISTANCE MANDEL.						
	CORRECTIVE ACTION-THE VENDOR HAS INITIATED A NEW CLEANING PROCESS WHICH ELIMINATES THE CONTAMINANT BUILDUP ON THE MANDEL.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	3P-99-24-4073-F 7-01849-13	FAR	830725	FACTORY	YES ROSEMOUNT ENGR	002803
	FAILURE MODE-LEAK. ELEMENT A INSULATION RESISTANCE AT 100 VDC WAS 10 MEGOHMS WHEN 20 MEGOHMS MINIMUM IS REQUIRED. CAUSE ATTRIBUTED TO A HUMIDITY SOAK INDICATING A LEAK IN THE HERMETICALLY SEALED HEAD. LOCATION OF LEAK NOT FOUND BUT PROBABLY EMANATED THROUGH SOLDER JOINT BETWEEN ELECTRICAL PLUG AND HEAD.						
	CORRECTIVE ACTION-WORKMANSHIP PROBLEM BROUGHT TO ATTENTION OF THOSE CONCERNED AND IN-PROCESS INSPECTION ESTABLISHED TO CHECK ALL SOLDER JOINTS. VENDOR IS ALSO EVALUATING THIS TYPE UNIT IN EFFORT TO CORRECT ANY OTHER POSSIBLE CAUSES OF REDUCED INSULATION RESISTANCE.						
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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	PPT-PR-99D1849 PRESSURE TRANSDUCER	UTP-PRI 60-01003-18	930728	GD/C	NO	BOURNS NO 8004200304
<p>FAILURE MODE-OUT OF SPECIFICATION. EXPERIMENTAL ERROR BAND WAS PLUS 0. MINUS 2.1 PER CENT DURING 300 DEGREE F. HOT TEST. ALLOWABLE ERROR IS PLUS 2.0. MINUS 2.0 PER CENT. POST 300 DEGREE F. HOT TEST THE EXPERIMENTAL ERROR BAND WAS PLUS 0.2. MINUS 1.2 PER CENT. ALLOWABLE ERROR IS PLUS 1.0. MINUS 1.0 PER CENT. DIFFERENCES ARE WITHIN THE READABILITY OF TEST EQUIPMENT.</p>						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	SP-99-24-4121F OSCILLATOR	FAR 27-01352-137 AND - 145	930728	FACTORY	YES	SEMDIX NO 1069098-A-6 AN D -E-6
<p>FAILURE MODE-FAIL DURING OPERATION. UNIT3 FAILED IN THE FACTORY WHEN NO DEVIATION IN FREQUENCY WAS APPARENT TO APPL 150 VOLTAGES. FAILURES WERE NOT CONFIRMED HOWEVER BOTH UNITS INDICATED EXCESSIVE FREQUENCY OUTPUT IN RELATION TO 150 VOLTAGES. FAILURE WAS ATTRIBUTED TO AGING OF THE ASSOCIATED COMPONENTS.</p>						
CORRECTIVE ACTION-NONE. BASIC TELEMETRY /ROUND CANISTER/ ARE BEING SUPERCEDED BY A LIGHTWEIGHT TRANSDUCER VER310 N.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-SP-99-24-4126 PRESSURE TRANSDUCER	FAR 27-01843-9	930728	FACTORY	NO	BOURNS NO 42011-0-150-75 2
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE TRANSDUCER FAILED WHEN NO OUTPUT WAS OBTAINED THROUGHOUT THE ENTIRE PRESSURE RANGE.</p>						
CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. REPORTED FAILURE RESULTED FROM USE OF INCORRECT CALIBRATION TECHNIQUES. OR USE OF FAULTY EQUIPMENT. IT WAS RECOMMENDED THAT TECHNIQUES AND EQUIPMENT BE RECHECKED BEFORE REJECTING TRANSDUCERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER, RESISTOR ERS	N2-AS-24-4026-F AMPLIFIER, RESISTOR	FAR 27-18762-803	8100 930724		YES	SEMDIX NO
<p>FAILURE MODE-FAILED DURING OPERATION. CHANNEL 11- 100 PCT CAL. PULSE INDICATED 37 PCT. IBM WHEN 96 PCT. IBM IS EXPECTED. FAILURE WAS CONFIRMED AND CAUSED BY THE FRACTURE OF THE OUTPUT LOADING RESISTOR R11. FRACTURE WAS ATTRIBUTED TO OVER HEATING DURING SOLDERING.</p>						

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CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SIZE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							003867
	CORRECTIVE ACTION-RECOMMENDED TO VENDOR TO IMPROVE BOWDERING AND INSPECTION TECHNIQUES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-4101P CHANGEOVER SWITCH	FAR 7-01722-8	030723	FACTORY	NO	KINETICS NO W172-4	003824
	FAILURE MODE-ERRATIC OPERATION. THE POWER CHANGEOVER SWITCH FAILED DURING THE ELECTRICAL AND VIBRATION TESTS OF THE TOP PACKAGE. CONTACT PINS P3 AND P6 WERE REPORTED TO BE LOOSE, RESULTING IN THE UNIT CHATTERING DURING ACTUATION. FAILURE WAS NOT CONFIRMED. THE INDICATED FAILURE MAY HAVE BEEN DUE TO EITHER NOISY DC LINE VOLTAGE OR INCORRECT USE OF F PROCEDURES.						
	CORRECTIVE ACTION-FACTORY PERSONNEL WERE ADVISED OF THE RESULTS OF THIS FAILURE ANALYSIS. CLOSER AND REPEATED TESTING WILL BE PERFORMED WHENEVER A FAILURE OCCURS IN THE FACTORY TO PRECLUDE THE REJECTION OF A GOOD COMPONENT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-20-24-4059F AMPLIFIER-TRANSFORMER	FAR 27-01841-1	030725	FACTORY	YES	MAYBERRY NO 114-0	003843
	FAILURE MODE-FAILED DURING OPERATION. AMPLIFIER OUTPUT DISPLAYED 9 PCT FBW NOISE. 7 PCT NOISE IS ALLOWED. FAILURE WAS CONFIRMED AND RESULTED FROM A NOISY AND MICROPHONIC INPUT TRANSFORMER.						
	CORRECTIVE ACTION-EFFECTIVE 1 JULY 1963. VENDOR REDESIGNED AMPLIFIER USING A TRANSFORMER WITH LESS INHERENT NOISE CHARACTERISTICS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-AB-24-4051F AUXILIARY SIGNAL CONDITIONER-AMPLIFIER	FAR 27-12393-807	224D	FACTORY	YES	MAYBERRY NO	003707
	FAILURE MODE-OUT OF TOLERANCE. SYSTEM TESTS SHOWED SEGMENT 25 OF CHANNEL 18 WAS OUTSIDE THE ALLOWED SPECIFICATION FREQUENCY TOLERANCE. CHANNEL 18 HAD EXCESSIVE SPIKING IN ONE NEGATIVE GATE. HIGH SEGMENT PULSES WERE CAUSED BY HIGH OUTPUT FROM THE DIFFERENTIAL AMPLIFIER WHICH EXCEEDED SPECIFICATION MAXIMUM TOLERANCE BY 0.40 VOLT. A COLD SOLDER JOINT CAUSED THIS CONDITION.						
	CORRECTIVE ACTION-O.C. CORRECTIVE ACTION WAS STARTED BY REQUESTING THE AMPLIFIER VENDOR (MAYBERRY ELECTRONICS) BE INFORMED OF THE CAUSE OF FAILURE. COLD SOLDER JOINTS AND POOR BOWDERING TECHNIQUE USED IN THE MANUFACTURE OF THE DIFFERENTIAL AMPLIFIER.						

GENERAL DYNAMICS
CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERR	A-98-24-4080-F TELEMETRY SET AND TRANSDUC AMPLIFIER ERR	60-07800-088 FAR	630728 DATE DIP	FACTORY TIME DIP	YES SCIONICS NO MCS-101	
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE AMPLIFIER, WITH ITS NEXT ASSEMBLY TRANSDUCER, HAD NO OUTPUT. FAILURE WAS CONFIRMED, HOWEVER, THE CAUSE OF FAILURE COULD NOT BE DETERMINED DUE TO DISCONTINUANCE OF ANALYSIS AS A RESULT OF CANCELLATION OF CONTRACTUAL COVERAGE.						
CORRECTIVE ACTION-NO ACTION COULD BE TAKEN SINCE THE CAUSE OF FAILURE WAS NOT DETERMINED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONVERTER DIODE ERR	A-98-24-4080-F TELEMETRY SET AND TRANSDUC CONVERTER DIODE ERR	27-18374-803 FAR	630728 DATE DIP	FACTORY TIME DIP	YES NO	
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THIS EVENT-SIGNALS ASSEMBLY WOULD NOT OSCILLATE AFTER IT WAS PUT IN AND INSTALLED IN THE NEXT ASSEMBLY. IT WAS SUSPECTED DIODE CR-11 WAS OUT OF TOLERANCE. FAILURE WAS CONFIRMED. UNIT WOULD ONLY OSCILLATE AT 130 DEGREES F OR HIGHER. DIODE CR-11 CHARACTERISTICS WERE ALWAYS WITHIN SPECIFICATIONS. FAILURE WAS CONCLUDED TO BE DUE TO AN OVER-OPTIMISTIC CIRCUIT DESIGN PLACING OVER-CONFIDENCE IN A SEMI-CONDUCTOR DEVICE WHOSE PARAMETERS ARE NOT FULLY SPECIFIED.						
CORRECTIVE ACTION-REQUESTED A DESIGN STUDY OF THE OSCILLATOR CIRCUIT BE CONDUCTED TO FACILITATE A MORE RELIABLE CIRCUIT USING COMPONENTS WHOSE PARAMETERS ARE FULLY KNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR/TUBE ERR	SP-98-24-4117-F TELEMETRY SET AND TRANSDUC OSCILLATOR/TUBE ERR	7-01468-039 FAR	2630 DATE DIP	FACTORY TIME DIP	YES BENDIX NO 1041982-3K	
FAILURE MODE-ERRATIC OPERATION. OUTPUT INDICATED A CHANGE IN FREQUENCY WITH A CONSTANT INPUT OR CONTROL VOLTAGE. FAILURE CAUSED BY CHANGING CHARACTERISTICS OF MODULATOR TUBE V-1, TYPE 9113.						
CORRECTIVE ACTION-BURN-IN OF SUBCARRIER OSCILLATOR MODULES, AND REVISION OF PERTINENT EOP'S SO THIS BURN IN PROCEDURE CAN BE ACCOMPLISHED BEFORE COMPONENT TESTING OF THE TELEMETRY PACKAGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	SP-98-24-4148-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	7-01781-5 FAR	830719 DATE DIP	FACTORY TIME DIP	YES BOURN NO	
FAILURE MODE-ERRATIC OPERATION FROM FLUCTUATING OUTPUT VOLTAGE AT THE TRANSDUCERS UPPER RANGE. THE DISCREPANCY WAS CAUSED BY LOW CONTACT FORCE OF THE BOTTOM HALF OF THE DUAL CONTACT WIPER ALLOWING IT TO LEAVE THE MANORREL.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CONNECTIVE ACTION-VENDOR ACTION PERFORMS 100 PERCENT FINAL INSPECTION FOR WIPER CONTACT FORCE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	PPT-FR-6801949 PRESSURE TRANSDUCER	UTP-PRT 69-01003-13	630719	607C	YES BOURNS NO 8004206504	691325
FAILURE MODE-OUT OF SPECIFICATION. X-AXIS VIBRATION TEST EXPERIMENTAL ERROR BAND WAS +2.5 PERCENT AND -3.9 PERCENT. ALLOWABLE IS + OC - 2.5 PERCENT. EXCESS ERROR DUE TO IMPROPER COUNTER WEIGHTS. POST VIBRATION PROOF CYCLE WAS SATISFACTORY.						
CONNECTIVE ACTION-VENDOR RECALLED UNITS TO SOLVE THE VIBRATION PROBLEM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERR	2P-09-24-4103-F OSCILLATOR	FAR 7-01499-883	630716	FACTORY	NO BENDIX-PACIFIC NO 1041863-2-X	695222
FAILURE MODE-FAIL DURING OPERATION. THE OSCILLATOR FAILED MANUFACTURING TESTING BY INDICATING A NO-OUTPUT CONDITION. FAILURE ANALYSIS COULD NOT BE PERFORMED DUE TO AN INADVERTENT SHORTING OF THE FILAMENT POWER SUPPLY DURING SETUP FOR ANALYSIS. THIS INTRODUCED AN ELECTRICAL TRANSIENT TO THE SYSTEM.						
CONNECTIVE ACTION-NONE SINCE FAILURE ANALYSIS WAS NOT PERFORMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	A-43-14-4207-F PRESSURE TRANSDUCER	FAR 7-01750-3	136F 630718	FACTORY	BOURNS 73311-0-33-752	693577
FAILURE MODE-ERRATIC OPERATION. ALL 3 UNITS INDICATED INTERMITTENT OPEN CIRCUITS WHEN MISSILE HYDRAULIC SYSTEM WAS OPERATING AND WHEN LOW HELIUM PRESSURE WAS APPLIED. EVIDENCE OF FIBER CONTAMINATION FOUND HOWEVER IT IS UNLIKELY THIS WOULD CAUSE 3 FAILURES IN SUCCESSION. SINCE EACH UNIT WAS ATTACHED TO SAME WIRING HARNESS AN ELECT MALFUNCTION IS MORE PROBABLE CAUSE OF FAILURES.						
CONNECTIVE ACTION-PERSONNEL ALERTED TO POSSIBLE ELECTRICAL SYSTEM MALFUNCTION. VENDOR NO LONGER USING PIPE CLEANERS FOR CLEANING IN EFFORT TO ELIMINATE FIBER CONTAMINATION. FAILURE NOT CONFIRMED. -A						

MOORE & VANNOY
PHOTOCOPYING SERVICE

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	QIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSODUC FILTER-CAPACITOR ERS	SP-99-24-4060-F PAR	87-18898-3	630719	FACTORY	YES	APPLIED COMPO NO ENTS ACT 8030-3
FAILURE MODE-FAILED DURING OPERATION. OUTPUT OF CHANNEL NO. 8 WAS 7.8 MV WHEN 6.46 MV OR LESS WAS EXPECTED. FAILURE WAS CONFIRMED. CAUSED BY A POOR SOLDER CONNECTION OF PARALLEL RESONANT CAPACITOR OF THE MINIATURE BYPASS FILTER.						
CORRECTIVE ACTION-VENDOR NOTIFIED AND AGREED TO TEMPERATURE CYCLE THE UNIT AND RECHECK.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSODUC ILM CANISTER-OSCILLATOR ERS	A-99-24-4041-F PAR	87-11841-919	2830 630719	FACTORY	YES	REMAIN NO
FAILURE MODE-FAIL DURING OPERATION. DURING SYSTEM TESTS CHANNEL 15 INDICATED DEVIATION OF 18-20 PERCENT FULL BANDWIDTH FROM HIGH FREQUENCY BAND EDGE. CHANNEL 16 WAS MARGINAL 17-18 PERCENT. CHANNEL 15 FAILURE CAUSED BY OSCILLATOR CIRCUIT SENSITIVE TO RESISTANCE AND TEMPERATURE CHANGES. CHANNEL 16 AND 17 FEED CONTROL WAS OUT OF ADJUSTMENT.						
CORRECTIVE ACTION-NEW PROCEDURE WRITTEN FOR BURN-IN OF MODULES. EOP3 REVISED TO CALL FOR BURN-IN TO BE ACCOMPLISHED PRIOR TO COMPONENT TESTING OF THE TELEMETRY PACKAGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSODUC OSCILLATOR-ELECTRONIC TUBE ERS	SP-99-24-4006-F PAR	87-11841-919	2830 630719	FACTORY	YES	REMAIN NO
FAILURE MODE-OUT OF TOLERANCE. PACKAGE FAILED ON MISSILE WHEN CHANNEL 13 OPERATED BEYOND ITS BAND LIMIT. FAILURE OF THE PACKAGE WAS DUE TO FAILURE OF THE OSCILLATOR. OSCILLATOR FAILURE (DRIFTING FREQUENCY OUTPUT) WAS ATTRIBUTED TO CHANGING CHARACTERISTICS OF THE MODULATOR TUBE Y-1.						
CORRECTIVE ACTION-NONE. THE PRESENT REMOIN ROUND TELEMETRY CANISTER IS BEING REPLACED WITH A NEW LIGHTWEIGHT REMOIN TELEPAR. THIS OSCILLATOR IS NOT USED ON THE NEW TELEPAR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSODUC AMPLIFIER DIODE ERS	A-99-24-4071-F PAR	87-01198-1	630719	FACTORY	YES	SULTON NO FTS180
FAILURE MODE-OUT OF SPECIFICATION. THE AMPLIFIER FAILED FOR HAVING EXCESS NOISE ON THE OUTPUT. WITH THE INPUT SHORTED BY A 1000 PICOAMP CAPACITOR, AND A GAIN OF 10, THE STATIC NOISE LEVEL WAS 27 MILLIVOLTS RMS. THE MAXIMUM ALLOWABLE NOISE UNDER THIS CONDITION IS 12 MILLIVOLTS. FAILURE WAS CONFIRMED AND CAUSED BY A SOFT-KNEE ZENER DIODE (1N763) IN TURN CAUSED BY BREAKDOWN OF THE CRYSTAL STRUCTURE.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-RECOMMENDED THE AMPLIFIER VENDOR REVIEW THE DESIGN OF THE AMPLIFIER CIRCUIT AND OPERATING POINT OF THE ZENER DIODE. SELECT A ZENER DIODE WITH LEAKAGE CURRENT SPECIFICATIONS WELL BELOW THE OPERATING POINT OF THE ZENER, AND REVIEW AND IMPROVE THE QUALITY OF ZENER DIODES USED ON THESE AMPLIFIERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER POWER SUPPLY TRANSISTORS ERR	A-99-24-3392-F TRANSDUCER POWER SUPPLY TRANSISTORS	FAR 87-18891-807	137F 630719	FACTORY	YES NO	
FAILURE MODE-SHORT (SELECT). TRANSDUCER POWER SUPPLY 2 INDICATED NO OUTPUT DURING FACTORY CHECKOUT OF THE TELEMETRY ACCESSORY PACKAGE ABOARD MISSILE 137F. FAILURE WAS CONFIRMED, HOWEVER, THE EXACT CAUSE COULD NOT BE DETERMINED. ANALYSIS SHOWED THE 8-2 AND 8-3 TRANSISTORS HAD SHORTED BASE TO EMITTERS WHICH COULD BE DUE TO EITHER A COMPONENT FAILURE OF 8-2, OR A SHORTED OR OVERLOADED OUTPUT FROM THE POWER SUPPLY.						
CORRECTIVE ACTION-NONE. CAUSE OF FAILURE COULD NOT BE DETERMINED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER 2 ERR	A-99-24-4010-C TRANSDUCER PRESSURE TRANSDUCER 2	FAR 7-01783-11	630719	FACTORY	YES NO	YES BOURNS NO 48013-0-30-T52
FAILURE MODE-OUT OF SPECIFICATION. STATIC ERROR BAND FOR BOTH UNITS WAS OUTSIDE THE PLUS OR MINUS 1.0 PERCENT ALLOWED.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS CANCELLED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER HARNESS ERR	SP-A9-24-4091-F TRANSDUCER HARNESS	FAR 59-14301-5	135D 630719	FACTORY	YES NO	YES BENDIX NO 6E-10-6W-101
FAILURE MODE-OPEN (SELECT). HARNESS PLUG FAILED WHEN THE HARNESS WIRE CONNECTED TO PIN A ON PLUG P3108 HAD INTERMITTENT CONTINUITY DURING MISSILE CHECKOUT. FAILURE WAS CONFIRMED. ANALYSIS REVEALED THE WIRE TO PIN A HAD ONLY 3 OF THE 19 STRANDS IN SOLDERED CONTACT WITH THE REST CUT OR STRETCHED DURING ASSEMBLY AND POTTING. CAUSE OF FAILURE THUS AT TRIBUTED TO FAULTY ASSEMBLY OF PLUG P3108.						
CORRECTIVE ACTION-ASTRONAUTICS INFORMED COINTEGRANT FACTORY PERSONNEL OF ANALYSIS RESULTS AND REQUESTED APPROPRIATE ACTION TO PREVENT RECURRENCE OF THE PROBLEM.						

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO		
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERR	PRT-TP-89P-2187-1 UTP-PRT 87-01898-21	830711	FACTORY	YES	MIANCHO	NO	880692	
FAILURE MODE-OUT OF TOLERANCE. UNIT S/N 3050008 WAS OUT OF TOLERANCE ON ALL READINGS DURING PROOF CYCLE. FAILURE WAS DUE TO WRONG EPOXY USED IN FABRICATION.								
CORRECTIVE ACTION-VENDOR REDESIGNED ALL UNITS WITH NEW EPOXY.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR, RESISTOR ERR	A-99-24-4038-F FAR	830709		YES	BENDIX	NO	837820	
FAILURE MODE-ERRATIC OPERATION. OSCILLATOR FAILED DURING A BENCH TEST DUE TO EXCESSIVE NOISE AND ERRATIC OPERATION DURING VIBRATION TESTS IN THE Y-AXIS. FAILURE WAS CAUSED BY A VIBRATION SENSITIVE R-3 RESISTOR. THIS RESISTOR, WHEN VIBRATED AT APPROXIMATELY 1 KILOCYCLE PER SECOND, SHOWED A VARYING RESISTANCE SUFFICIENT TO CAUSE A 40 CPS CHANGE IN FREQUENCY OUTPUT WHEN INSTALLED IN THE OSCILLATOR.								
CORRECTIVE ACTION-BAR A-99-24-3906 WAS WRITTEN DETAILING THE RESULTS OF THE FAILURE ANALYSIS AND THE VENDOR WAS INFORMED.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER ERR	SP-90-24-3583-F FAR	27-18385-879	2010	WTR	YES	NO	883875	
FAILURE MODE-OUT OF TOLERANCE DURING CHECKOUT OF THERMOCOUPLE INSTALLATION. THE 100 PERCENT TEMPERATURE CALIBRATION PULSE SHOWED APPROXIMATELY 6 VOLTS DC ON THE OSCILLOSCOPE WHEN 5.0 PLUS OR MINUS 0.1 VOLTS DC IS EXPECTED. FAILURE WAS NOT CONFIRMED. THE UNIT OPERATED PERFECTLY DURING FAILURE ANALYSIS.								
CORRECTIVE ACTION-UNKNOWN. THE REPORTED FAILURE WAS DISCUSSED WITH RESPONSIBLE PERSONNEL AT WTR AND A REQUEST MADE FOR RE-EXAMINATION OF FAILURE TEST RESULTS AND INSPECTION OF ASSOCIATED INSTRUMENTATION USED. WTR RESPONDED WITH TAPED RESULTS OF THE FAILURE AS EVIDENCE. NO EQUIPMENT OR INSTRUMENTATION DISCREPANCIES WERE FOUND. NO FURTHER CORRECTIVE ACTION TAKEN.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	A-99-24-4029-F FAR	87-01898-33	2320	FACTORY	YES	SERVONIC	NO	880692
FAILURE MODE-INTERNAL LEAK. VOLTAGE OUTPUT OUT OF SPECIFICATION. FAILURE CAUSED BY LEAKAGE OF 875 PRESSURE INTO THE CASE. LEAKAGE OCCURRED THROUGH POROUS BRAZING BETWEEN BOURDON TUBE AND PRESSURE INLET TIP.								

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18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SIZE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-UNIT REDESIGNED BY VENDOR MAKING BRAZED SECTION INDEPENDENT OF FITTING AREA. NEW BRAZING TECHNIQUE BEING EVALUATED.							998002
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER 27-01358-13 ERS							998020
FAILURE MODE-OUT OF TOLERANCE. TWO SPECIMENS EXHIBITED OUT OF TOLERANCE OUTPUT DURING INITIAL PROOF CYCLE. FAILURE WAS NEGATIVE LINEAR SHIFT DUE TO WRONG EPOXY USED IN FABRICATION. (8/N 308-0018 AND 309-0019).							
CORRECTIVE ACTION-VENDOR REDESIGNED ALL UNITS WITH NEW EPOXY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC WIRING CIRCUITS-SIGNAL CONDITIONER 27-12813-5 ERS							998067
FAILURE MODE-ERRATIC OPERATION. REPLACEMENT OF SEVERAL TELEMETRY COMPONENTS DURING COUNTDOWN INCLUDED SIGNAL CONDITIONER FROM VEHICLE 84E. INCOMPATIBILITY OF WIRING CONFIGURATIONS CAUSED IMPROPER OPERATION.							
SYSTEM EFFECT-ERRATIC OPERATION. DIFFERENCE IN WIRING CONFIGURATIONS BETWEEN ORIGINAL AND REPLACEMENT SIGNAL CONDITIONERS CAUSED LOSS OF 8 ITEMS OF TELEMETRY DATA. INTERFERENCE BETWEEN CHANNELS, INTERMODULATION AND OSCILLATOR FREQUENCY DEVIATIONS OUT OF BAND.							
VEHICLE EFFECT-NONE EXCEPT LOSS OF DATA.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ELECTRONIC TUBE 27-12851-1 ERS							991574
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED WHEN POWER OUTPUT DROPPED TO 1.5 WATTS. APPROX. 23WATTS IS EXPECTED. FAILURE WAS CONFIRMED AND FOUND TO BE CAUSED BY VACUOUS POWER AMPLIFIER FINAL OUTPUT TUBE.							
CORRECTIVE ACTION-NONE. TUBE FAILURE WAS DETERMINED TO BE OF RANDOM NATURE AND NOT INDICATIVE OF A FAILURE TREND. NO OTHER FAILURES OF THIS KIND HAD BEEN REPORTED TO DATE.							

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CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-A-99-24-3871	FAR 27-01896-28	43F 630702	FACTORY	NO	SERVONIC MO H-178-2	890714
FAILURE MODE-STRUCTURAL. THREE TRANSDUCERS FAILED WHEN THEY EXHIBITED A POSITIVE STATIC ERROR ABOVE THE ALLOWABLE 1.0 PERCENT FULL SCALE. THE FAILURE WAS THE RESULT OF OVERPRESSURIZATION ABOVE THE DESIGNED LIMIT CAUSING A PERMANENT DISTORTION OF THE PRESSURE ELEMENT.							
CORRECTIVE ACTION-6D/C REQUESTED CHECKOUT AND TROUBLE-SHOOTING PROCEDURES AND TECHNIQUES BE REVIEWED TO PRECLUDE THE POSSIBILITY OF INTRODUCING EXCESSIVE PRESSURE INTO THE HYDRAULIC SYSTEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	BP-99-24-4122F	FAR 7-01864-883	630826	FACTORY	YES	BENDIX MO 7-01864-853	891023
FAILURE MODE-FAIL DURING OPERATION. UNIT WAS REJECTED WHEN A NEGATIVE SPIKE OCCURRED DURING VIBRATION TESTING PER E OP 330.329.11. FAILURE COULD NOT BE DUPLICATED.							
CORRECTIVE ACTION-NONE. FAILURE COULD NOT BE DUPLICATED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	9601850	UTP-01AL/PPT 69-01003-39	630826	6D/C	YES	BOURNS MO 8007371707	892316
FAILURE MODE-OUT OF SPECIFICATION. IN THE RESOLUTION TEST OF 26 JUNE 1963, THERE WERE 386 DISCRETE STEPS, 137 OF WHICH EXCEEDED 0.25 PERCENT. SIX STEPS EXCEEDED 0.5 PERCENT. ON 2 JULY 1963, DURING THE PROOF CYCLE FOLLOWING ADDITIONAL HIGH TEMPERATURE TESTS, THE MAXIMUM ERROR BAND WAS OUT OF TOLERANCE. THE MAXIMUM ERROR WAS 1.3 PERCENT AT 98 PERCENT OF FULL SCALE VOLTAGE RATIO. THE FAILURE WAS COORDINATED WITH THE VENDOR WHO CONFIRMED THE FAILURE.							
CORRECTIVE ACTION-THE VENDOR IS PLANNING CORRECTIVE ACTION. THE VENDOR REWORKED THE PART.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	A-99-24-4002F	FAR 27-01896-11	630826	FACTORY	YES	UNITED ELECTRO DYNAMICS 80180	
FAILURE MODE-STRUCTURAL. TRANSMITTER FAILED DURING FINAL FACTORY CHECKOUT. OUTPUT POWER FLUCTUATED BETWEEN 2.0 AND 4.0 WATTS. FAILURE WAS CAUSED BY THREE TUNING COILS BEING LOOSE IN THE TRANSMITTER CASE. THIS WAS PROBABLY DUE TO A SEVERE LATERAL SHOCK CAUSED BY MISHANDLING.							

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DIFFICULTED REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYS- SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTM	VENDOR NAME VENDOR PART NO
						091649
	CORRECTIVE ACTION-THE VENDOR AGREED TO ANCHOR THE TUNING COILS MORE SECURELY ON THE TWO TRANSMITTERS REMAINING TO B E DELIVERED. AN AVO, DATED JULY 29, 1963, TO THE SUPERVISORS OF THE FINAL ASSEMBLY AREA, INFORMED THEM OF THE INDICA TED CAUSE OF FAILURE, AND REQUESTED MORE CAREFUL HANDLING OF THE SIX TRANSMITTERS COMPRISING ALL THE TRANSMITTERS OF THIS TYPE ORDERED.					
						093934
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR SUBCARRIER ERS	SP-99-24-3550F OSCILLATOR SUBCARRIER	FAR 99-13557-013	1260 030622	FACTORY	YES NO	
	FAILURE MODE-FAIL DURING OPERATION-DURING COMPOSITE TEST CHANNEL NO. 7 INDICATED ERRATIC VARIATIONS OF UP TO 8 PCT 1BW. FAILURE COULD NOT BE CONFIRMED NEITHER ABOARD THE MISSILE NOR DURING EXTENSIVE COMPONENT LEVEL TESTING.					
	CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.					
						093233
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	SP-99-24-3548C AMPLIFIER	COMPOSITE-FACTORY 99-13668-023	1260 030622	FACTORY	YES NO	
	FAILURE MODE-STRUCTURAL. BREAKUP WAS INDICATED ON CHANNEL C, SEGMENTS 71 TO 93 AND CHANNEL E, SEGMENTS 15 TO 27 AND SP-99. FAILURE WAS CONFIRMED VIA TESTING ON THE MISSILE AND ISOLATED TO CHANNEL E AC STRAIN GAUGE AMPLIFIER. NO ATT EMPT AT FAILURE ANALYSIS WAS MADE DUE TO LACK OF A BACKUP PACKAGE AND REPLACEMENT AMPLIFIER.					
	CORRECTIVE ACTION-NONE. UNIT WAS SHIPPED AS IS TO BE REPLACED AND REMOVED WHEN A BACKUP PACKAGE BECAME AVAILABLE.					
						094470
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY-DIGOE ERS	SP-99-24-4034-F POWER SUPPLY-DIGOE	FAR 99-13555-3	2630 030622	FACTORY	YES NO	
	FAILURE MODE-FAIL DURING OPERATION. SMOKE OBSERVED COMING FROM COMMUTATOR POWER SUPPLY WHEN POWER WAS APPLIED. FAIL URE CAUSED BY FAULTY TRANSISTOR AND DIODE.					
	CORRECTIVE ACTION-INCREASE QUALITY CONTROL DURING ASSEMBLY OF THE POWER SUPPLY.					
						093934
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	AX69-0003-1260/FC-CO-03-0508-003 OSCILLATOR	COMPOSITE-FACTORY 1260 030622	1260 030622		YES NO	
	FAILURE MODE-DRIFT. CHANNEL 7 RF NO. 1 (BOOSTER NO. 1 PITCH), DISPLAYED UNEXPECTED LEVEL SHIFTS UP TO 8 PERCENT 1BW					

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CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
<p>• BELIEVED DUE TO A FAULTY OSCILLATOR.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING AND SYSTEMS LEVEL TESTING REQUIRED.</p> <p>CORRECTIVE ACTION-THE TELEMETRY CANISTER WAS RETURNED TO COMPONENTS AREA AND CHANNEL 7 OSCILLATOR WAS REPLACED. FAILURE ANALYSIS ON REMOVED OSCILLATOR DID NOT CONFIRM THE FAILURE.</p>						
<p>INSTRUMENTATION-A/B AX63-0003-1280/FC-CO-03-0502-003 COMPOSITE-FACTORY 1280 FACTORY YES TELEMETRY SET AND TRANSDUC TLM CANISTER 930821 NO ERS</p> <p>FAILURE MODE-ERRATIC OPERATION. R.F. NO. 2 CHANNEL C SEGMENTS 71 TO 83, MEASUREMENT A1689, AND CHANNEL E SEGMENTS 19 TO 27 AND 37 TO 49 MEASUREMENT A1978 DISPLAYED ERRATIC OPERATION INTERMITTENTLY DURING THE TEST. PROBLEM WAS ISOLATED TO THE TELEPAK.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED.</p> <p>CORRECTIVE ACTION-NO REPLACEMENT WAS AVAILABLE AT TIME OF TEST. AN IR WAS INITIATED AND THE TELEPAK WAS LEFT ON THE BOOSTER FOR FURTHER TESTING AND SHIPMENT. TELEPAK TO BE REPAIRED OR REPLACED WHEN PARTS OR REPLACEMENT BECAME AVAILABLE.</p>						
<p>INSTRUMENTATION-A/B 3P-99-24-4089-F FAR 630821 FACTORY YES BENDIX TELEMETRY SET AND TRANSDUC OSCILLATOR 7-01664-935 NO TOE-41 ERS</p> <p>FAILURE MODE-OUT OF SPECIFICATION. DURING VIBRATION OF THE TELEMETRY CANISTER THE CHANNEL 11 OSCILLATOR INDICATED INTERMITTENT NOISE OF 1.1 TO 6 PERCENT INFORMATION BANDWIDTH WHEN 4 PCT IS THE MAXIMUM ALLOWED. FAILURE WAS NOT CONFIRMED. NO DEFINITE CAUSE OF FAILURE WAS FOUND HOWEVER, THE REPORTED FAILURE MAY HAVE BEEN DUE TO THE OSCILLATOR NOT BEING FASTENED DOWN TIGHTLY IN ITS NEXT ASSEMBLY.</p> <p>CORRECTIVE ACTION-TELEMETRY TEST PERSONNEL WERE NOTIFIED OF THE FINDINGS OF THIS ANALYSIS AND WERE REQUESTED TO USE GREATER CARE IN THE PREPARATION AND TESTING OF TELEMETRY CANISTERS.</p>						
<p>INSTRUMENTATION-A/B A-99-24-3338F FAR 630820 FACTORY YES TELEMETRY SET AND TRANSDUC TLM CANISTER-RECTIFIER 27-18561-807 NO ERS</p> <p>FAILURE MODE-OUT OF TOLERANCE. 2 UNITS WERE ANALYZED FOR THE SAME PROBLEM. OUTPUTS OF THE DUAL CRYSTAL RECTIFIER WERE BELOW THE 2.5 VDC PLUS OR MINUS 0.088 VDC REQUIRED WITH 115 VAC 400 CYCLES INPUT. FAILURES WERE CONFIRMED. HOWEVER, THEY WERE ATTRIBUTED TO IMPROPER ADJUSTMENT OF THE RECTIFIERS PRIOR TO INSTALLATION. AFTER READJUSTMENT THE DUAL RECTIFIER OUTPUTS WERE SATISFACTORY.</p>						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI OTH	VENDOR NAME VENDOR PART NO	
							003774
	CORRECTIVE ACTION-PERIOD OF TEST SET VALIDATION WAS REVIEWED TO INSURE AGAINST PACKAGE SETUP WITH FAULTY EQUIPMENT. TEST SET WAS FOUND ADEQUATE. TECHNICIANS WERE INSTRUCTED TO TAKE GREATER CARE, IN THE FUTURE, WHEN ADJUSTING THE DUAL RECTIFIERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SP-99-24-3593-F A-A9-24-3573-Y	PAR 7-01723-11	030619	FACTORY	YES	CEC NO 4-3806AA-9A	001853
	FAILURE MODE-STRUCTURAL. UNIT FAILED DUE TO LEAKAGE CAUSED BY A DEFORMED O-RING AND A CRACKED SOLDER JOINT IN THE CANNISTER. THE O-RING WAS DEFORMED BECAUSE OF AN IMPROPERLY MACHINED O-RING SEAT.						
	CORRECTIVE ACTION-NONE. VENDOR HAS DISCONTINUED MANUFACTURE OF THIS ITEM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	A-A9-24-3573-Y A-A9-24-3573-Y	PAR 55-01271-9	45F 030619	FACTORY	YES	FIFTH DIMENSION NO N	003874
	FAILURE MODE-CONTAMINATION. DURING FACTORY CHECKOUT THE CHANNEL 12 COMMUTATOR RAN ERRATICALLY. FAILURE WAS CONFIRMED. THE COMMUTATOR WAS ERRATIC WITHIN THE SPECIFICATION SPEED BAND. THE CAUSE WAS ATTRIBUTED TO METALLIC PARTICLES PASSING THROUGH MATING GEARS IN THE GEAR BOX.						
	CORRECTIVE ACTION-REQUESTED MANUFACTURER OF COMMUTATOR TO ASSURE NECESSARY MANUFACTURING AND QUALITY CONTROL PROCEDURES TO PREVENT RECURRENCE OF THIS FAILURE MODE. REQUESTED ENGINEERING TO REVISE ACCEPTANCE TEST PROCEDURES TO REQUIRE COMMUTATORS OF THIS TYPE NOT TO EXCEED A FRAME-TO-FRAME COMMUTATOR SPEED VARIATION OF MORE THAN 0.5 PERCENT OF THE RATED COMMUTATOR SPEED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR POTENTIOMETER ERS	SP-99-24-4106 A-A9-24-3573-Y	PAR 27-11241-910	2630 030616	FACTORY	YES	BENDIX NO 1047387	008413
	FAILURE MODE-STRUCTURAL. CHANNEL 12 NEGATIVE PEDestal CHANGED FROM 7 TO 9 PERCENT BANDWIDTH. CHANNEL 11 AND 10 NEGATIVE PEDestals ALSO CHANGED. THE FAILURE WAS CAUSED BY A POTENTIOMETER WITH 3 MISSING VIPER ARMS.						
	CORRECTIVE ACTION-THE VENDOR WAS NOTIFIED AND CAUTIONED TO TIGHTEN INSPECTION PROCEDURES.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIT DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE TIME D/P	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-99-24-3817-F A-99-24-3817-F	FAR 27-12375-808	930816	FACTORY	YES	BENDIX NO 1098900-809	993233
FAILURE MODE-OUT OF TOLERANCE. SUBCARRIER OSCILLATOR FOR CHANNEL 8 DRIFTED OUT OF TOLERANCE. FAILURE NOT CONFIRMED.							
CORRECTIVE ACTION-NONE. OSCILLATOR DRIFT WAS FOUND TO BE WITHIN TOLERANCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-POTENTIOMETER ERS	SP-99-24-4033-F SP-99-24-4033-F	FAR 27-01807-117	930816	FACTORY	YES	BENDIX PACIFIC NO 313155-9-6	994469
FAILURE MODE-FAIL DURING OPERATION. DURING BENCH TESTING THE FREQ. DEVIATION COULD NOT BE CONTROLLED BY ADJUSTMENT OF THE OSCILLATOR OUTPUT VOLTAGE POTENTIOMETER. FAILURE CAUSED BY LOOSE WIPER ASSEMBLY OF THE POTENTIOMETER.							
CORRECTIVE ACTION-VENDOR INDICATED IMPROVEMENTS OF THE POTENTIOMETER HAVE BEEN INCORPORATED WHICH REDUCE THE POSSIBILITY OF RECURRENCE OF THE FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR TUBE/TYPING-0111 ERS	SP-99-24-3510-F SP-99-24-3510-F	FAR 55-13337-813	1240 930815	FACTORY	YES	BENDIX-PACIFIC NO	993411
FAILURE MODE-OUT OF SPECIFICATION. CHANNEL A AND E WERE OUT-OF-BAND, CAUSED BY A SHIFT IN VACUUM TUBE PARAMETERS. THE FAILURE WAS CONFIRMED.							
CORRECTIVE ACTION-ECP 7424 WAS PRESENTED TO THE AIR FORCE PROPOSING A CHANGE TO SOLID STATE OSCILLATORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR GEAR MOTOR ERS	SP-99-24-3510-F SP-99-24-3510-F	FAR 55-13337-813	1200 930815	FACTORY	YES	REED AND REED NO	993410
FAILURE MODE-CONTAMINATION. CHANNEL E COMMUTATOR WAS INTERMITTENT CAUSED BY EXCESSIVE CARBON DUST THROUGHOUT THE UNIT.							
CORRECTIVE ACTION-ECP 7424 WAS PRESENTED TO THE AIR FORCE PROPOSING A CHANGE TO COMMUTATORS HAVING A HIGHER DEGREE OF RELIABILITY.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE DIP TIME	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR ERS	8P-98-24-4017	PAR	930814	FACTORY	YES BENDIX NO 1096483-3-S	993690
FAILURE MODE-CONTAMINATION. MOTOR OVERSPED DURING MANUFACTURING TESTING. DISASSEMBLY SHOWED THE MIGRATION OF METAL WAS APPARENT ON BOTH SETS OF CONTACTS. FAILURE WAS CAUSED BY METAL MIGRATION BETWEEN THE GOVERNOR CONTACTS, CAUSING THE CONTACTS TO MAINTAIN ELECTRICAL CONTINUITY TOO LONG TO REGULATE SPEED WITHIN SPECIFICATIONS.						
CORRECTIVE ACTION-BARS A-99-24-3904 AND A-99-24-3905 WERE PREVIOUSLY ISSUED, RECOMMENDING A DESIGN REVIEW OF THE MOTOR. SPEED TOLERANCES WERE SUBSEQUENTLY REVISED FROM PLUS OR MINUS 5 TO PLUS OR MINUS 6 PERCENT AS OF OCTOBER 23, 1963.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	AK93-0003-1280/PC-CO-02-0802-003	COMPOSITE-FACTORY	1280	FACTORY	YES NO	999639
FAILURE MODE-OUT OF TOLERANCE. RF NO. 1 CHANNEL A WAS OPERATING BELOW THE LOW FREQUENCY BAND EDGE. SYSTEM EFFECT-OPERATION TOO LOW. CHANNEL A WAS OPERATING BELOW THE LOW FREQUENCY BAND EDGE. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEM LEVEL AND POST-COMPOSITE TESTING REQUIRED. CORRECTIVE ACTION-REPLACED FAULTY TELEMETRY CANISTER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-OSCILLATOR ERS	A-19-24-3508-F	PAR	136F	FACTORY	NO BENDIX NO 27-01257-801	997483
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. CHANNEL 9 OUTPUT WAS 98 PCT BAND WIDTH AT CENTER FREQUENCY STIMULUS WHEN 49 PCT WAS EXPECTED. THE CHANNEL 9 OSCILLATOR WAS APPARENTLY CALIBRATED AT CENTER FREQUENCY, USING 1.875 VDC INPUT INSTEAD OF THE REQUIRED 2.8 VDC. CORRECTIVE ACTION-SINCE PROCEDURE USED TO CALIBRATE THIS PACKAGE REQUIRES 2.5 VDC BE USED FOR CENTER FREQUENCY ADJUSTMENT OF CHANNEL 9, AND SINCE APPROPRIATE PERSONNEL ARE NOW AWARE OF THE DISCREPANCY, NO FURTHER CORRECTIVE ACTION IS NECESSARY.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	98D1850	UTP-GUAL/PPT	930613	6D/C	YES BOURNS NO 2007371707	
FAILURE MODE-OUT OF SPECIFICATION. ON 13 JUNE 1963, THE RESOLUTION CHECK REVEALED 447 DISCRETE STEPS OF WHICH 44 EXCEEDED 9.85 PERCENT. TWO STEPS EXCEEDED TWICE THE SPECIFIED RESOLUTION. DURING THE SECOND CALIBRATION CYCLE, ONE POI						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SIZE TIME DIF	PRI OTN	VENDOR NAME VENDOR PART NO	
							092327
WE EXCEEDED THE ALLOWED ERROR BAND BY 0.1 PERCENT. THE POINT WAS 9.1 PERCENT OF FULL SCALE VOLTAGE RATIO, WHEN IT SHOULD BE 2.0 PLUS OR MINUS 1.0 PERCENT. ON 18 JUNE 1963, THE UNIT EXPERIENCED UPWARD SHIFT AFTER THE HIGH TEMPERATURE TEST, WHICH PLACED THE ERROR BAND OUT OF TOLERANCE.							
CORRECTIVE ACTION-THE UNIT WAS REJECTED ON IR NUMBER 980108 AND RETURNED TO THE VENDOR FOR REMOKE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMPARATOR, MOTOR ERS	SP-92-24-4010F	FAR	630612	FACTORY	YES	BENDIX NO 1098485-6-3	092649
FAILURE MODE-OUT OF SPECIFICATION ON LIMITS. MOTOR FAILED DUE TO UNDERSPEED DURING VIBRATION TESTING. FAILURE WAS CAUSED BY MIGRATION OF CARBON BRUSH MATERIAL INTO THE GEAR ASSEMBLY, WHERE IT COMBINED WITH THE LUBRICANT PRESENT TO MAKE A GRINDING COMPOUND, THAT WITH NORMAL ROTATION OF THE GEARS, WORE OUT THE ASSEMBLY. WEAR CONTINUED TO A POINT WHERE BINDING CAUSED THE MOTOR TO SLOW UP.							
CORRECTIVE ACTION-RAR SP-99-24-3977 WAS ISSUED TO INVESTIGATE THE GEAR MOTOR FAILURE PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-99-24-4000-F	FAR 7-01731-9	630611	PHR	NO	BOURNS NO 71724-G-35-75E	092797
FAILURE MODE-OPEN (ELECT). UNIT FOUND TO HAVE AN OPEN CIRCUIT. FAILURE CONSISTING OF AN OPEN PLATINUM ELEMENT ATTRIBUTED TO EXCESSIVE VOLTAGE BEING APPLIED.							
CORRECTIVE ACTION-PERSONNEL CAUTIONED REGARDING EXCESSIVE VOLTAGE TO PREVENT REOCCURENCE OF THIS FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONVERTER-TRANSISTOR ERS	A-99-24-5352F	FAR 27-12651	43F 630610	FACTORY	YES	U. E. D. NO 14363H	093090
FAILURE MODE-FAIL DURING OPERATION. NO RF OUTPUT WAS EVIDENT. INVESTIGATION REVEALED THAT THE FUSE TO THE INPUT OF THE POWER CONVERTER 27-14322 WAS BLOWN AND THAT 2 DELCO 5N100 TRANSISTORS IN THE CHOPPER CIRCUIT WERE FAULTY. MEASUREMENT OF THE TRANSISTOR SWITCHING VOLTAGE REVEALING EXCESSIVE SPIKING AND CONSEQUENT BREAKDOWN OF THE TRANSISTOR.							
CORRECTIVE ACTION-RECOMMENDED THAT THE VENDOR INCORPORATE PROTECTIVE CIRCUITRY FOR TRANSIENT SUPPRESSION IN HIS DESIGN OF THE DC TO DC CONVERTER.							

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GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME D.F.	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	H6-99-84-3321-F TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FAR 87-18290-812	630810	FACTORY	YES NO	083803
FAILURE MODE-ERRATIC OPERATION. THE TELEPAR OPERATED ERRATICALLY, HOWEVER, THE FAILURE WAS NOT CONFIRMED.						
CORRECTIVE ACTION-THE PACKAGE WAS SUCCESSFULLY CALIBRATED WHERE NECESSARY AND SINCE NO INDICATION OF PART FAILURE WAS DISCOVERED, NO FURTHER CORRECTIVE ACTION WAS TAKEN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	A-99-14-3318-F TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	FAR 87-18872-847	136F 630810	FACTORY	YES NO	083832
FAILURE MODE-OUT OF TOLERANCE. SPIKING UP TO 50 PERCENT ISM AND 5 PERCENT ISM NOISE ON CHANNEL 12. ACCEPTABLE NOISE LEVEL IS 5 PERCENT ISM. FAILURE NOT CONFIRMED.						
CORRECTIVE ACTION-NONE. CHANNEL 12 DEVIATION WAS READJUSTED WHICH REDUCED NOISE TO ACCEPTABLE LEVEL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	JP-99-24-3380-F TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	FAR 99-13310-1	630809	FACTORY	NO NO	083898
FAILURE MODE-OUT OF TOLERANCE. DURING ELECTRICAL TESTING TRANSDUCER POWER SUPPLY INDICATED A NOISE LEVEL OF 10 MILLIVOLTS WHEN THE ALLOWABLE LEVEL IS 5 MILLIVOLTS. FAILURE WAS NOT CONFIRMED. THE REPORTED FAILURE WAS DUE TO SPECIFIC ACTION MISINTERPRETATION BY TESTING PERSONNEL.						
CORRECTIVE ACTION-PERSONNEL RESPONSIBLE FOR DISASSEMBLING PARTS PRIOR TO SHIPMENT FOR FAILURE ANALYSIS WERE INSTRUCTED THAT TAMPERING COULD DESTROY THE ORIGINAL CAUSE OF FAILURE AS WELL AS ADDING NEW DISCREPANCIES. THE COP WAS DISCUSSED WITH TEST PERSONNEL TO DETERMINE IF ANY CLARIFICATION WAS NEEDED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-TUNE ERS	SP-99-24-3567-F TELEMETRY SET AND TRANSDUC OSCILLATOR-TUNE ERS	FAR 7-01488-839	630807	FACTORY	YES NO	1041962-3-K
FAILURE MODE-OUT OF TOLERANCE. THE OSCILLATOR BECAME UNSTABLE DURING MANUFACTURING TESTS. FAILURE WAS CONFIRMED. OSCILLATOR DID NOT STABILIZE AT CENTER FREQUENCY OF 70,000 PLUS OR MINUS 888 CPS BUT DRIFTED FROM 71,800 TO 71,723 CPS IN 1.5 HOURS. FAILURE WAS DUE TO CHANGING CHARACTERISTIC OF THE MODULATOR TUBE V-1 1779E 81111.						

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CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIF DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE DIF	TIME DIF	OTH	VENDOR PART NO
CORRECTIVE ACTION-THE PRESENT BENDIX ROUND TELEMETRY CANISTER IS BEING REPLACED WITH A NEW LIGHTWEIGHT BENDIX TELEP AN WHEREIN THIS OSCILLATOR IS NO LONGER USED.						
INSTRUMENTATION-A/B	A-89-24-3884-F	FAR	830807	SANDISCO	YES BENDIX	
TELEMETRY SET AND TRANSDUC OSCILLATOR / RESISTOR		87-01488-065			NO TDSJ	
ERR						
FAILURE MADE-OUT OF TOLERANCE. OSCILLATOR WAS REJECTED WHEN IT DRIFTED 500 CPS ABOVE THE HIGH FREQUENCY SANDISCOPLU 8 ON MINUS 184 CPS IS ALLOWED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO AGEING OF THE MODULATOR STAGE COMPONENTS, HAM 5.7 AS RESISTOR.						
CORRECTIVE ACTION-REPLACE THE BENDIX ROUND CANISTER WITH A LIGHTWEIGHT TRANS- ISTORIZED VERSION. FOR EXISTING ROUND CANISTER MODULES. AN EXTENDED BURN PROCEDURE (TD-7-01488) IS BEING WRITTEN TO CATCH THOSE OSCILLATORS SUBJECT TO EX CERRIVE DRIFT.						
INSTRUMENTATION-A/B	8P-AS-24-3537-F	FAR	830808	FACTORY	YES TEXAS INSTRUME	
TELEMETRY SET AND TRANSDUC OSCILLATOR		82-09700-839			NO NTS	
ERR					483802-13	
FAILURE MODE-FAIL DURING OPERATION-IT WAS REPORTED THAT THE SCO HAD NO OUTPUT. FUNCTIONAL TEST OF THE OSCILLATOR FA ILED TO DISCLOSE ANY PROBLEMS.						
CORRECTIVE ACTION-NONE-FAILURE COULD NOT BE CONFIRMED.						
INSTRUMENTATION-A/B	8P-93-24-4128-F	FAR	830808	FACTORY	YES BENDIX	
TELEMETRY SET AND TRANSDUC OSCILLATOR/TUBE ELECTRONIC		7-01884-899			NO 1040839-87	
ERR						
FAILURE MODE-FAIL DURING OPERATION. UNIT WAS REJECTED WHEN NOISE AND DISTORTION DEVELOPED DURING VIBRATION TESTING. FAILURE WAS CONFIRMED AND RESULTED FROM A VIBRATION SENSITIVE ELECTRON TUBE/ST18/. REASON FOR TUBE BEING SENSITIVE COULD NOT BE DETERMINED.						
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO BE MORE SELECTIVE IN CHOOSING COMPONENTS.						
INSTRUMENTATION-A/B	FAR-A-89-24-3531	FAR	45F	FACTORY	YES BOURNS	
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER		87-01843-8	830808		NO 42011-0-180-79	
ERR						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	UNIT THE ELECTRICAL RECEPTACLE ONTO THE TRANSDUCER ALLOWED LOSS OF THE REFERENCE VACUUM, RESULTING IN THE TRANSDUCER HAVING A LOW OUTPUT THROUGHOUT ITS OPERATING RANGE.						990710
	CORRECTIVE ACTION-THE VENDOR WAS REQUESTED TO IMPROVE SC METHODS TO PREVENT PORES IN THE SOLDER CONNECTIONS.						990711
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-N7-2D-24-3381 FAR-N7-2D-24-3381 FAR-N7-2D-24-3381	FAR 87-01868-89	1960 830806	YAFB	YES SERVONIC NO H-172-2		991072
	FAILURE MODE-ELECTRICAL OPEN. THE TRANSDUCER FAILED WHEN IT EXHIBITED AN INTERMITTENT OPEN CONDITION. FAILURE WAS CAUSED BY A LONGITUDINAL MOVEMENT OF THE WIPER ASSEMBLY DURING VIBRATION, CAUSING AN OPEN CIRCUIT DUE TO THE WIPER LEAVING OFF THE RESISTANCE ELEMENT.						
	CORRECTIVE ACTION-GD/C INITIATED A VIBRATION TEST TO REJECT VIBRATION SENSITIVE TRANSDUCERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-38-24-3382-F A-38-24-3382-F A-38-24-3382-F	FAR 87-01868-89	830809	SAN DIEG O	YES BENDIX NO TOE 44		993100
	FAILURE MODE- FAIL TO OPERATE AT PRESCRIBED TIME. OSCILLATOR WAS REJECTED FOR NO OUTPUT. FAILURE COULD NOT BE DUPLICATED. HOWEVER, DURING VISUAL INSP. A PORTION OF THE GLASS ENVELOP OF V8 WAS BROKEN. ONE TO THE METHOD OF FABRICATION. THIS PROBLEM HAD NO EFFECT ON THE OPERATION OF THE OSCILLATOR.						
	CORRECTIVE ACTION-FAILURE NOT CONFIRMED. THE VENDOR WAS INFORMED CONCERNING HIS FABRICATION TECHNIQUE. TIGHTER INSPECTION AND IMPROVED WORKMANSHIP WERE RECOMMENDED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER-POWER SUPPLY ERS	A89-24-3514-F A89-24-3514-F A89-24-3514-F	FAR 87-18879-801	1367 830803	FACTORY	BENDIX-PACIFIC		
	FAILURE MODE-FAIL DURING OPERATION. NO RF OUTPUT FROM TELEMETRY PACKAGE. FAILURE CAUSED BY POWER SUPPLY FAILURE.						
	CORRECTIVE ACTION-FUTURE PROPOSALS WILL SPECIFY PACKAGES OTHER THAN 87-01887. THE LIGHT WEIGHT PACKAGE TO BE SPECIFIED USED A REDESIGNED POWER SUPPLY. DESIGN CHANGES ON THE OLD HEAVY WEIGHT PACKAGE WOULD NOT BE INCORPORATED UNTIL LATE IN THE SERIES AND WOULD NOT JUSTIFY THE ADDITIONAL COST.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PMI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC HARNESS ERS	9P-99-24-3402-F A-99-24-3400F TELEMETRY SET AND TRANSDUC LIMITER FILTER INDUCTOR	FLIGHT 88-14301-8	1280 830801	FACTORY	YES NO	
FAILURE MODE-OUT OF TOLERANCE. DURING A RUN OF THE TELEMETRY SYSTEM CHECKOUT A LOW OUTPUT WAS FOUND ON CHANNEL 1E1. THE TROUBLE WAS ISOLATED TO HARNESS PYN 88-14301-8. PIN A OF PLUG J8088 WAS FOUND TO HAVE A LOOSE WIRE. A CONSIDERABLE NUMBER OF STRANDS OF THE WIRE WERE CUT, AND THE REMAINDER WERE TWISTED OR TORQUED OFF.						
CORRECTIVE ACTION-RECOMMENDED ASSEMBLY PERSONNEL BE MADE AWARE OF THE FAILURE AND CLOSER INSPECTION BE PERFORMED BEFORE POTTING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	A-99-24-3400F TELEMETRY SET AND TRANSDUC LIMITER FILTER INDUCTOR	830329	FACTORY	YES	NO	
FAILURE MODE-STRUCTURAL. CHANNEL 2 DID NOT ATTENUATE THE SIGNAL ENOUGH AT THE HIGH FREQUENCY END OF THE BANDPASS FILTER. OUTPUT OF THE FILTER WAS 7.0 MILLIVOLTS INSTEAD OF 8.05. SEPARATION OF THE INDUCTOR LAMINATIONS CAUSED A CHANGE IN INDUCTANCE, RESULTING IN IMPROPER BANDPASS CHARACTERISTICS OF THE FILTER.						
CORRECTIVE ACTION-FAILURE ANALYSIS RECOMMENDED A SURVEY OF THE EXISTING STOCK AT CONVAIR BE CONDUCTED TO DETERMINE IF THE BANDPASS CHARACTERISTICS OF THESE FILTERS MEET SPEC. CONTROL DRAWING 27-01295.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	A-99-24-3558 TELEMETRY SET AND TRANSDUC OSCILLATOR	830329	FACTORY	YES	NO	
FAILURE MODE-FAIL DURING OPERATION. UNIT FAILED DURING VIBRATION OF ITS TELEMETRY PACKAGE, BY DISPLAYING SPIRING AND DISTORTION. FAILURE COULD NOT BE CONFIRMED. RECORDS OF THE PACKAGE HISTORY SHOW THAT J-28 P13 (INPUT PIN TO THE OSCILLATOR) HAD A BAD SOLDER CONNECTION AND THAT J-28 HAD BEEN CRACKED AND REPLACED. FAILURE WAS ASSUMED TO BE CAUSED BY THIS CONDITION.						
CORRECTIVE ACTION-NONE. FAILURE COULD NOT BE CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	A-99-24-3558F TELEMETRY SET AND TRANSDUC COMMUTATOR	830328	88H DIES	YES	FIFTH DIMENSION	
FAILURE MODE-CONTAMINATION. DURING BENCH CHECKOUT. COMMUTATOR MAN AT 7.40 RPS WHILE 9.28 RPS IS THE LOWEST IN-TOLERANCE SPEED FOR THIS MINIMAL 10 RPS COMMUTATOR. FAILURE WAS CONFIRMED. FAILURE WAS CAUSED BY EITHER CARSON GRINDINGS IN THE GEAR MOTOR OR METALLIC GRINDINGS IN THE GEAR TRAIN. METALLIC FOREIGN MATERIAL INDICATES INADEQUATE QUALITY OF						

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CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CTRL BY THE VENDOR							099400
CORRECTIVE ACTION-VENDOR REQUESTED TO IMPROVE QUALITY CONTROL AND INSPECTION PROCEDURES DURING COMMUTATOR ASSEMBLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSUDC	A-99-24-3471-F	FAR	24E	FACTORY	YES	UNITED ELECTRO	092909
	SIGNAL CONDITIONER-CIRCUIT BOARD	27-12813-1	03027		NO	DYNAMICS 27-12813-1	
FAILURE MODE-OUT OF TOLERANCE. SIGNAL CONDITIONER OUTPUTS FROM SUBCARRIER CHANNELS 14 AND 15 WERE EXCESSIVELY NOISY AND INDICATED FAILURE OF THE COMMUTATOR AMPLIFIERS. EXCESSIVE NOISE WAS CAUSED BY 3 MISSING GROUND WIRE CONNECTIONS IN THE P/N 27-12813-7 CIRCUIT BOARD OF THE SIGNAL CONDITIONER. THE 3 MISSING CONNECTIONS WERE FROM 1B8-2 TO P103-31, 1B8-22 TO P104-44 AND P104-22 TO P104-43.							
CORRECTIVE ACTION-REQUESTED VENDOR QUALITY CONTROL CORRECTIVE ACTION BE TAKEN TO INSURE THIS MODE OF FAILURE DOES NOT RECUR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSUDC	SP-90-24-3391-F	FAR	03027	1-2	YES	UNITED ELECTRO	092174
	POWER SUPPLY DIODE	27-12813-3			NO	DYNAMICS	
FAILURE MODE-FAIL DURING OPERATION. FAILED WHEN TRANSMITTER CEASED TO OPERATE AFTER APPROXIMATELY EIGHT MINUTES OF OPERATION. FAILURE WAS CONFIRMED. CAUSE ATTRIBUTED TO DIODE FAILURE IN THE 425 VOLT D-C POWER SUPPLY SECTION. THIS CAUSED A SECONDARY FAILURE OF THE 2N100 TRANSISTOR.							
CORRECTIVE ACTION-NO CORRECTIVE ACTION WAS INITIATED AS AIR FORCE IS HAVING FURTHER ANALYSIS CONDUCTED ELSEWHERE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSUDC	SPB-24-3546P	FAR	03027	24N D166	YES	REMOIX	091281
	OSCILLATOR-RESISTOR	7-01488-027		O	NO	1050702-13-K	
FAILURE MODE-DRIFT. OSCILLATOR BECAME UNSTABLE WHILE BEING CHECKED IN TELEMETRY PKG. REPORTED INSTABILITY PROBLEM WAS NOT CONFIRMED. BUT TESTING REVEALED THAT THE HIGH FREQ. END COULD NOT BE ADJUSTED TO SPECS. BY CHANGING THE VALUE OF R-9, BIASING RESISTOR FOR V _i , THE OSCILLATOR COULD THEN BE ADJ. TO SPECS. FAILURE ATTRIBUTED TO AGING OF R-9 CAUSING THE OSCILLATOR TO DRIFT.							
CORRECTIVE ACTION-NONE. SINCE THE ROUND CAN TELEMETRY IS BEING REPLACED BY THE LIGHTWEIGHT SQUARE CAN. THE LIGHTWEIGHT CAN HAVE ADJUSTABLE BIASING RESISTORS.							

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18 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ELECTRICAL CONNECTOR ERS	SP-99-24-3498-F	FAR UNKNOWN	1860 830526	FACTORY	NO NO		892727
FAILURE MODE-STRUCTURAL. FAILURE LED TO ERRATIC OPERATION. TELEMETRY ACCESSORY PACKAGE INDICATED AN INTERMITTENT CONNECTION DUE TO THE ENLARGEMENT OF THE FEMALE RECEPTACLE A OF THE RECEPTACLE RJ1. THE LIP AREA OF THE FEMALE PINS WERE BENT OR ENLARGED DUE TO AN OVERSIZE PROBE BEING USED DURING TESTING OF THE PACKAGE.							
CORRECTIVE ACTION-REQUESTED FACTORY PERSONNEL BE INSTRUCTED TO USE THE PROPER TEST ACCESSORIES WHEN PERFORMING TESTS ON TELEMETRY EQUIPMENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER AUDIO FREQUENCY FILTER ERS	SP-99-24-3525-F	FAR 27-12860-1	830523	FACTORY	YES NO		892418
FAILURE MODE-STRUCTURAL. FAILURE CAUSED BY BROKEN SLEEVING, PROBABLY BROKEN DURING POTTING PROCESS AND POOR LEAD DRESS BEFORE POTTING.							
CORRECTIVE ACTION-DIMENSION OF MOLD EXTENDED TO PREVENT CONTACT OF THE WIRES. INSPECTION TEST SPECIFIED FOR FILTER ASSEMBLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER OSCILLATOR POTENTIOMETER ERS	A-99-24-4013F	FAR 27-01289-61	830523	FACTORY	YES NO	892601X NO 1028094-12-TA	892263
FAILURE MODE-OPEN (SELECT). DURING MANUFACTURING TEST, IT WAS NOT POSSIBLE TO ADJUST THE FREQUENCY OF THE LOWER BAND EDGE. THE POTENTIOMETER WAS REMOVED FROM THE ASSEMBLY AND WAS FOUND TO HAVE BROKEN STRANDS OF WIRE NEAR THE CENTER OF ITS WIRE WOUND RESISTANCE ELEMENT. THE FAILURE WAS ATTRIBUTED TO AN OPEN SENSITIVITY POTENTIOMETER.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERS	FAR-A-99-24-2369	FAR 7-01730-1	830523	FACTORY	YES NO	892601X NO 42018-0-150-75	8
FAILURE MODE-STRUCTURAL. THE TRANSDUCER FAILED WHEN THE STATIC ERROR BAND WAS PLUS 0.45, MINUS 4.4 PERCENT. MAXIMUM ALLOWABLE IS PLUS MINUS 5.6 PERCENT. IMPROPER WELDING CAUSED A CRACK IN THE OUTER BEAM OF THE BELLONS.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER ERS	SP-99-24-3342F SP-99-24-3342F SP-99-24-3342F	FAR 27-01299-1	030321	FACTORY	YES NO	APPLIED COMPO ENTIS AC13030-1
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. OUTPUT AT 370 CYCLES WAS MORE THAN THE MAX. 3DB DOWN FROM PEAK OUTPUT. PROBLEM WAS CONFIRMED AND ATTRIBUTED TO RELAXATION OF INDUCTOR LAMINATIONS, CAUSING A CHANGE IN INDUCTANCE. THIS RESULTED IN IMPROPER BANDPASS CHARACTERISTICS.						
CORRECTIVE ACTION-VENDOR AGREED TO TEMPERATURE CYCLE ALL FILTERS AFTER FINAL PRODUCTION. FAR GROUP ALSO RECOMMENDED THAT EXISTING STOCK BE SURVEYED TO DETERMINE ACCEPTABLE UNITS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER ERS	SP-99-24-3344F SP-99-24-3344F SP-99-24-3344F	FAR 27-01299-3	030321	BAND160	YES NO	APPLIED COMPO ENTIS AC13030-3
FAILURE MODE-OUT OF TOLERANCE. OUTPUT AT 875 CYCLES WAS MORE THAN THE MAX. 3DB DOWN FROM PEAK OUTPUT. PROBLEM WAS CONFIRMED AND ATTRIBUTED TO RELAXATION OF INDUCTOR LAMINATIONS CAUSING A CHANGE IN INDUCTANCE. THIS RESULTED IN IMPROPER BANDPASS CHARACTERISTICS.						
CORRECTIVE ACTION-VENDOR WAS NOTIFIED AND AGREED TO TEMPERATURE CYCLE ALL UNITS AFTER FINAL PRODUCTION. A SURVEY OF EXISTING STOCK WAS ALSO RECOMMENDED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER ERS	SP-99-24-3343F SP-99-24-3343F SP-99-24-3343F	FAR 27-01299-3	030321	BAND160	YES NO	APPLIED COMPO ENTIS AC13030-3
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. 2 UNITS WERE INVESTIGATED VIA THIS REPORT. OUTPUTS AT 875 CYCLES WERE MORE THAN THE MAX. 3DB FROM PEAK OUTPUT. PROBLEMS WERE CONFIRMED AND ATTRIBUTED TO RELAXATION OF INDUCTOR LAMINATIONS, CAUSING CHANGES IN INDUCTANCE. THIS RESULTED IN IMPROPER BANDPASS CHARACTERISTICS.						
CORRECTIVE ACTION-VENDOR AGREED TO TEMPERATURE CYCLE ALL UNITS AFTER FINAL PRODUCTION. A SURVEY OF EXISTING STOCK WAS ALSO RECOMMENDED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	MZ-99-24-3473-F MZ-99-24-3473-F MZ-99-24-3473-F	FAR 27-01366-33	030320	FACTORY	YES NO	SERVONIC N-172-4
FAILURE MODE-OUT OF SPECIFICATION. OUTPUT READ 89 PERCENT 1BW WHEN 77 PLUS OR MINUS 3 IS EXPECTED.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							008779
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS							006014
	A-92-24-3372	FAR	030516	FACTORY	YES	BENDIX MO 1006403-43	
FAILURE MODE-OUT OF TOLERANCE. THE D-C GEARMOTOR FAILED WHEN IT OVERSPEEDED DURING MANUFACTURING TESTING. FAILURE W AS CONFIRMED. MOTOR OPERATED AT 3.33 RPS WHEN 3.83 IS THE MAXIMUM ALLOWED. CAUSE WAS ATTRIBUTED TO BURNED AND PITTED CENTRIFUGAL SPEED-CONTROL CONTACTS.							
CORRECTIVE ACTION-UNKNOWN STUDIES ARE IN PROGRESS TO SEE IF THERE IS ANY JUSTIFICATION FOR BROADENING THE MOTOR SPE ED SPECIFICATIONS. FURTHER CORRECTIVE ACTION AWAITS THE OUTCOME OF THESE STUDIES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BANDPASS FILTER ERS							003393
	BP-99-24-3527F	FAR	030516	FACTORY	YES	APPLIED CONPON NO ENTS ACT 3030-3	
FAILURE MODE-OUT OF TOLERANCE. BANDPASS FILTER HAS MAX. OUTPUT BETWEEN 518 AND 802 CYCLES. UNIT FAILED EOP 330-504. OUTPUT AT 875 CYCLES EXCEEDED THE MAX. OF 17.8 PERCENT OF ITS PEAK OUTPUT. FAILURE WAS NOT CONFIRMED. UNIT BY ITSELF MET ALL SPECS OF 27-01293. PROBLEM WAS IN NOT ALLOWING SUFFICIENT TOLERANCE FOR THE UNIT WHEN INSTALLED IN ITS FIN AL ENVIRONMENT.							
CORRECTIVE ACTION-CHANGE LETTER B TO EOP 330. 504, WAS RELEASED CHANGING TOLERANCE AT 675 CYCLES FROM 17.8PCT TO 19 PCT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BANDPASS FILTER ERS							003392
	BP-99-24-3528-F	FAR	030516	FACTORY	YES	APPLIED CONPON NO ENTS ACT-3030-3	
FAILURE MODE-OUT OF TOLERANCE. BANDPASS FILTER HAS MAXIMUM OUTPUT BETWEEN 518 AND 802 CYCLES. UNIT FAILED EOP 330. 504-OUTPUT AT 875 CYCLES EXCEEDED THE MAX. OF 17.8PCT OF ITS PEAK OUTPUT. FAILURE WAS NOT CONFIRMED. UNIT BY ITSELF MET ALL SPECS. OF 27-01293. PROBLEM WAS IN NOT ALLOWING SUFFICIENT TOLERANCE FOR THE UNIT WHEN INSTALLED IN ITS FINA L ENVIRONMENT.							
CORRECTIVE ACTION-CHANGE LETTER B OF EOP 330. 504 WAS RELEASED CHANGING THE TOLERANCE AT 875 CYCLES FROM 17.8PCT TO 19.8PCT.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	SP-99-24-3497-F	FAR 27-01897-15	830516	FACTORY	YES NO	TEXAS INSTRUMENTS 430118-2	993993
FAILURE MODE-OUT OF TOLERANCE. THE 200 VOLT MONITOR OUTPUT READ 1.43 VOLTS WHEREAS 1.30 PLUS OR MINUS 0.10 VOLTS IS REQUIRED. FAILURE WAS ATTRIBUTED TO A TOLERANCE BUILDUP RATHER THAN TO ANY CHANGE IN THE POWER SUPPLY. THIS POWER SUPPLY HAS A HISTORY OF HAVING MARGINAL OUTPUTS.							
CORRECTIVE ACTION-RECOMMENDED THE UNIT BE RETURNED TO THE VENDOR FOR REMARK TO LOWER THE 200 VOLT DC MONITOR OUTPUT TO A VALUE NEARER THE NOMINAL VALUE OF 1.30 VOLTS SO THE UNIT IS NO LONGER MARGINAL. HOWEVER, AFTER DISCUSSION WITH OTHER GROUPS IT IS BELIEVED THE PROBLEM LIES IN THE AGING OF THE COMPONENTS RATHER THAN IN A DESIGN DEFICIENCY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BAND PASS FILTER ERS	A-99-24-3451-C	FAR 27-01893-3	830516	FACTORY	YES NO	ACI 3030-5	993994
FAILURE MODE-OUT OF SPECIFICATION. THE UNIT FAILED TO MEET EOP 330.304, PER IR 993676, WHEN IT PEAKED BELOW SPECIFICATION. NO ANALYSIS PERFORMED SINCE FAILURE WAS IN THE RECEIVING INSPECTION.							
CORRECTIVE ACTION-NONE INITIATED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-RESISTOR ERS	SP-99-24-4042-F	FAR 27-01807-113	1590 830513	FACTORY	YES NO	BENDIX-PACIFIC NO 313133-9-6	994468
FAILURE MODE-OPEN (ELECT). NO OUTPUT OBSERVED. FAILURE CAUSED BY CRACKED RESISTOR IN COLLECTOR BIAS CIRCUITRY.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	SP-99-24-3498-F	FAR 28-13333-3	830513	FACTORY	YES NO		
FAILURE MODE-FAIL DURING OPERATION. THE R-S POTENTIOMETER WAS OPEN AT THE ZENER DIODE END AND HAD NO EFFECT ON THE OUTPUT. WIRE 1 WAS BROKEN AT E2 AND E6 JUNCTIONS. TRANSISTOR 8-4 WAS GROUNDING DUE TO THE INSULATING WASHER EXTENDING BEYOND THE SIDES OF THE TRANSISTOR AND UNDER THE ADJACENT TRANSISTOR. THE TRANSISTOR MOUNTING SCREW WAS COCKED AND GROUNDING THE TEFLON INSULATING SLEEVE TO THE HEAT SINK.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-RECOMMENDED INSERTING A CURRENT LIMITING RESISTOR BETWEEN THE ZENER DIODE AND THE R-8 POTENTIOMETER TO PREVENT THE EXISTING PROBLEM. ALSO RECOMMENDED A DEFINITE LENGTH BE DETERMINED FOR THE INTERNAL WIRING TO ALLOW ACCESS TO INTERNAL PARTS.						993743
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	SP-99-24-3378-F SP-99-24-3378-F	FAR 7-01864-031	930812	FACTORY	YES	BENDIX NO 1049659-47	998016
	FAILURE MODE-OUT OF TOLERANCE. DURING FACTORY PREVIATION CHECKOUT OF THE TELEMETRY PACKAGE, CHANNEL 4 EXHIBITED EXCESSIVE NOISE. FAILURE WAS NOT CONFIRMED, HOWEVER, THE OSCILLATOR WAS FOUND TO BE NON-LINEAR DUE TO AGING OF THE ELECTRON TUBES.						
	CORRECTIVE ACTION-NONE. BENDIX LIGHTWEIGHT TELEPAKS USING TRANSISTORIZED OSCILLATORS INSTEAD OF TUBE TYPE OSCILLATORS WILL BE USED ON FUTURE CENTAUR BOOSTERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY-WIRING ERS	SP-99-24-3480-F SP-99-24-3480-F	FAR 99-13340-3	930911	FACTORY	YES NO		998021
	FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER POWER SUPPLY FAILED WHEN NO OUTPUT COULD BE MEASURED AT THE 5.1 VOLT TRANS-DUCER EXCITATION OUTPUT. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE INABILITY OF THE CHOPPER TO FUNCTION NORMALLY. THIS CONDITION RESULTED FROM POOR SOLDER CONNECTIONS IN THE CHOPPER CIRCUIT. THE FAULTY CONNECTIONS WERE AT THE JUNCTION OF R-6 AND BASE OF 8-3, R-8 AND THE COLLECTOR OF 8-4, AND R-8 AND THE BASE OF 8-5.						
	CORRECTIVE ACTION-REQUESTED IMPROVED WORKMANSHIP PRACTICES BE STRESSED TO APPLICABLE PERSONNEL IN ORDER TO MINIMIZE FUTURE FAILURES OF THIS NATURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER-TUBE ERS	SP-99-24-1541F SP-99-24-1541F	FAR 97-01618-3	930310	SAN DIEGO	YES NO	BENDIX NO 1077064-3	995778
	FAILURE MODE-OUT OF TOLERANCE. OUTPUT OF THE AMPLIFIER WAS 1.8 WATTS. 7.0 WATTS IS THE MINIMUM ALLOWED. FAILURE WAS CONFIRMED. CAUSED BY DEFECTIVE VACUUM TUBES V2 AND V3. THE INDICATIONS WERE THAT THEY HAD BEEN OVER HEATED.						
	CORRECTIVE ACTION-ASTRONAUTICS LAB PERSONNEL WERE REQUESTED TO INSURE THAT SUFFICIENT POT COOLING IS AVAILABLE AND OPERATING PRIOR TO OPERATING THE AMPLIFIERS.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-88-24-3330-F SP-88-24-3330-F INVERTER	FAR 27-12222-3	630510	FACTORY	YES NO	0983991
FAILURE MODE-OUT OF SPECIFICATION. INVERTER WAS REJECTED BECAUSE POT. R14 (ADJ. FOR TLM MEASUREMENT USIV) SHAFT WAS FROZEN AFTER POTTING. FAILURE WAS CONFIRMED. IT WAS DISCOVERED THAT BOURNS POT MODEL NO. 200L-1-202 WAS BEING USED WHICH IS NOT SPECIFIED AS BEING SEALED AGAINST ENTRY OF POTTING. INVERTER HAS LIMITED EFFECTIVITY.						
CORRECTIVE ACTION-BOURNS POT. MODEL 224L-1-202 HAS SIMILAR CHARACTERISTICS AND IS SPECIFIED AS BEING SEALED AGAINST POTTING ENTRY. IT WAS RECOMMENDED THAT THIS PART BE USED IN THE FUTURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-88-24-3310-F FAR 27-12232-3	FAR 27-12232-3	630510	FACTORY	YES NO	092171
FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE WAS UNSTABLE FOR AN INPUT OF 0.2 VOLT RMS. 90 CPS. FAILURE CAUSED BY A LOW BETA TRANSISTOR.						
CORRECTIVE ACTION-NONE. NEW OR EFFECTIVITIES USING LIGHTWEIGHT TELEMETRY WILL NOT USE THIS PART.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-88-24-3563 FAR 7-12222-3	FAR 7-12222-3	630507	FACTORY	YES NO	096017
FAILURE MODE-ERRATIC OPERATION. THE CALIBRATOR GAVE SIX POSITIVE PULSES FOR EVERY NEGATIVE PULSE WHEN ALTERNATE POSITIVE AND NEGATIVE PULSES WERE EXPECTED. FAILURE WAS CONFIRMED. FAILURE WAS DUE TO TRANSISTOR 84 HAVING A LOW CURRENT GAIN CAUSING RELAY K3 TO DROP OUT EARLY.						
CORRECTIVE ACTION-UNKNOWN. REPORT INITIATED REQUESTING REPLACEMENT OF THE 2N367A TRANSISTOR WITH A HIGHER CURRENT GAIN TRANSISTOR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-88-24-3581-F FAR 27-01007-117	FAR 27-01007-117	630507	FACTORY	YES NO	096017
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING BENCH TESTS THE OSCILLATOR WAS INOPERATIVE. FAILURE WAS NOT CONFIRMED. THE UNIT FUNCTIONED PROBABLY DURING ALL FAILURE ANALYSIS TESTING.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	DATE TIME DIP	DATE TIME DIP	PRI VENDOR NAME	VENDOR PART NO	
CORRECTIVE ACTION-THE REJECTING DEPARTMENT WAS NOTIFIED OF THE PROPER PROCEDURE TO FOLLOW WHEN A UNIT IS SUSPECTED TO HAVE FAILED.								893396
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	A-89-24-3368-F	FAR	630303	FACTORY	YES	BENDIX	NO 1096483-38	893313
FAILURE MODE-OUT OF TOLERANCE. THE D-C GEAR MOTOR FAILED WHEN IT RAN OVERSPEED DURING MANUFACTURING TESTING. FAILURE WAS CONFIRMED. MOTOR INDICATED SPEED OF FROM 3.44 TO 3.52 RPS WHEN A MAXIMUM OF 2.825 RPS IS ALLOWED. HOWEVER, MOTOR BLOWN TO IN-TOLERANCE SPEED AFTER 10 MINUTES OPERATION. CAUSE ATTRIBUTED POSSIBLY TO STICKING CENTRIFUGAL SPEED-C CONTROL CONTACTS. EXACT CAUSE UNCERTAIN.								
CORRECTIVE ACTION-UNKNOWN. STUDIES ARE IN PROGRESS TO SEE IF THERE IS ANY JUSTIFICATION FOR BROADENING MOTOR SPEED SPECIFICATION. FURTHER CORRECTIVE ACTION AWAITA THE OUTCOME OF THESE STUDIES.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	A-89-24-3348F	FAR	630303	FACTORY	YES	BENDIX	NO 1030283-86A	893336
FAILURE MODE-DRIFT. OSCILLATOR DRIFTED PLUS OR MINUS 35CPS WHEN PLUS OR MINUS 15CPS MAXIMUM IS ALLOWED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO INSTABILITY OF OSCILLATOR TUBE V-1.								
CORRECTIVE ACTION-NONE. REDESIGN COULD NOT BE ACCOMPLISHED UNTIL TOO LATE IN THE PROGRAM TO MAKE IT ECONOMICALLY FEASIBLE. A NEW TRANSISTORIZED VERSION WILL BE AVAILABLE BY THEN.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-TUBE ERS	87-99-24-3404-F	FAR	2100	FAC	YES	BENDIX	NO 1041982-4-Z	893084
FAILURE MODE-FAIL DURING OPERATION. FAILURE ANALYSIS DID NOT CONFIRM THE FAILURE BUT THE UNIT DID EXHIBIT EXCESSIVE DRIFT. THE EXCESSIVE DRIFT WAS CAUSED BY A FAULTY V-1 MODULATOR TUBE.								
CORRECTIVE ACTION-BENDIX ROUND CANISTER TO BE REPLACED WITH A NEW LIGHTWEIGHT PACKAGE-WAP M-0J0080.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	A-89-24-3435-C	FAR	2100	FACTORY	YES	BENDIX	NO	
FAILURE MODE-PAILED DURING OPERATION. THE TELEFAN DID NOT GIVE A RADIO FREQUENCY OUTPUT AS REQUIRED BY SPECIFICATION NO.								

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIP OTH	PRI DIP OTH	VENDOR NAME VENDOR PART NO
	CORRECTIVE ACTION-NONE-SINCE THE TELEPAR WAS REPAIRED AND TESTED BEFORE FAILURE ANALYSIS PERSONNEL WERE PRESENT, PR OPER FAILURE ANALYSIS WAS VOIDED AND THE ANALYSIS WAS CANCELED.					
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-TRANSDUC ERS	NZ-99-24-4033-F PAR 87-01610	2100 08C303	FACTORY	YES BENDIX NO	YES BENDIX PACIFIC NO 3131107 MODEL TX2500
	FAILURE MODE-FAIL DURING OPERATION. NO RF OUTPUT OBSERVED. FAILURE CAUSED BY IMPROPER SING IN OSCILLATOR CIRCUIT AM D TRANSDUCER SHOWED SIGNS OF MOISTURE WITHIN ITS CASE.					
	CORRECTIVE ACTION-UNKNOWN.					
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	SP-99-24-3488-F PAR 7-01488-881	630503	FACTORY	YES BENDIX NO	YES BENDIX NO 1041982-4-Z
	FAILURE MODE-DRIFT. SUBCARRIER OSCILLATOR OUTPUT WAS INTERMITTENT. FAILURE WAS NOT CONFIRMED. HOWEVER, THE OSCILLAT OR DID EXHIBIT EXCESSIVE FREQUENCY DRIFT THAT WOULD RESULT IN AN OUT OF TOLERANCE OUTPUT. THE DRIFT WAS CAUSED BY A FAULTY V-1 MODULATOR TUBE, TYPE 6111, WHICH EXHIBITED UNSTABLE EMISSION CURRENT BECAUSE OF DETEIORATED OXIDE COATING ON THE CATHODE.					
	CORRECTIVE ACTION-NONE. A NEW BENDIX LIGHTWEIGHT TELEMETRY PACKAGE USING A SOLID STATE OSCILLATOR CIRCUIT WHICH ELI MINATES THIS PROBLEM IS REPLACING THE ROUND BENDIX TELEMETRY CANISTER.					
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC REGULATOR ASSEMBLY - TRANSDUCER ERS	99-99-24-3555F PAR 87-11354-3	630503	FACTORY	YES NO	
	FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED WHEN 9.0 VDC OUTPUT COULD NOT BE REGULATED. MALFUNCTION WAS DISCOV ERED AFTER ENCAPSULATION. PRIOR TO THAT TIME THE UNIT FUNCTIONED PROPERLY. FAILURE WAS CONFIRMED AND ATTRIBUTED TO L OW GAIN OF TRANSDUCER 83. THE REASON FOR THE LOW GAIN OF 83 COULD NOT BE DETERMINED.					
	CORRECTIVE ACTION-NONE. SINCE THE REASON FOR 83 FAILURE COULD NOT BE DETERMINED.					

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	AXA3-0003-2100/FC-CO-01-0013-011 A93-0003-2100/FC-CO-01-0013-011 27-12768-803	COMPOSITE-FACTORY 2100 830502	YES NO			830502
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 11, SEGMENT 29 (100 PCT BRIDGE CALIBRATED), INDICATED 98 PCT ISM WHEN 96 PCT ISM WAS EXPECTED AND MEASUREMENT PLAT (1-11-37) INDICATED 86 PCT ISM WHEN 83 PCT WAS EXPECTED.						
SYSTEM EFFECT-OPERATION TOO LOW.						
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEM LEVEL AND COMPOSITE RETESTING REQUIRED.						
CORRECTIVE ACTION-REPLACED TELEMETRY CANISTER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	A-98-24-3378-F A98-24-3378-F	FAR 630502	FACTORY YES BEND 12 NO 1096483-48			830502
FAILURE MODE-FAIL DURING OPERATION. THE D-C GEAR MOTOR FAILED WHEN IT CEASED TO FUNCTION DURING VIBRATION TEST OF THE TELEMETRY CANISTER ASSEMBLY. FAILURE WAS NOT CONFIRMED, HOWEVER, PIECES OF CARBON GRINDINGS FOUND IN THE MOTOR COULD HAVE LOGGED SO AS TO BLOCK TURNING OF THE MOTOR. SUBSEQUENT VIBRATION OR ROTARY MOTION MAY HAVE DISLODGED THE PARTICLES AND REDUCED THEM TO A SMALLER UNOBSERVABLE SIZE.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PREFLIGHT CALIBRATOR ERS	HC-98-24-3440-P HC-98-24-3440-P	FAR 27-12261-1	630502 ETN NO NO			830502
FAILURE MODE-OUT OF TOLERANCE. CALIBRATOR WAS REMOVED PER SURVEY 34-63. CALIBRATOR RATTLE WAS CONFIRMED AND CAUSED BY RELAY WHICH WAS NORMAL FOR THIS TYPE RELAY.						
CORRECTIVE ACTION-A REDESIGN OF THE PREFLIGHT CALIBRATOR TO ACHIEVE CONFORMANCE WITH MIL-8-19500B.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BANDPASS FILTER ERS	SP-99-24-3519-F SP-99-24-3519-F	FAR 7-11333-9	630502 FACTORY YES AC ELECTRONICS NO			830502
FAILURE MODE-SHORT (ELECT). OUTPUT FROM CHANNEL 2 WAS INTERMITTENT. OUTPUT VOLTAGE VARIED WHEN THE CASE WAS TAPPED. CAUSE WAS ATTRIBUTED TO UNINSULATED WIRES TOUCHING, PRODUCING A SHORTED CONDITION.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
992864	CORRECTIVE ACTION-VENDOR WAS CAUTIONED TO TAKE CARE IN LEAD DRESSING PROCEDURES BEFORE POTTING. ALSO RECOMMENDED NA 3 THE USE OF INSULATED WIRES.					
993102	INSTRUMENTATION-A/B A-98-24-4005F TELEMETRY SET AND TRANSDUC AMPLIFIER, WIRING ERS	FAR 27-01192-1	75F 630502	BYCAMORE	YES	GULTON MO FT-4150
993069	FAILURE MODE-ELECTRICAL OPEN. AMPLIFIER FAILED DURING CHECKOUT BEFORE A HOT FIRING. OUTPUT WAS EXCESSIVELY NOISY. A AMPLIFIER WAS OPENED AND DEPOSITED. THE BLUE LEAD FROM THE POSITIVE SIDE OF THE 22 MICROFARAD 15 VOLT CAPACITOR WAS PO UND BROKEN LOOSE. MICROSCOPIC EXAMINATION OF THE BREAK SHOWED MORE THAN 78 PERCENT OF THE CROSS SECTION OF THE WIRE WAS COVERED WITH SOLDER.					
993069	CORRECTIVE ACTION-VENDOR WAS INFORMED OF THE FAILURE, HE STATED NASA TYPE SOLDERING WAS NOW BEING ACCOMPLISHED AND THIS TYPE OF DEFECT SHOULD NO LONGER OCCUR.					
993069	INSTRUMENTATION-A/B A-99-24-3491-F TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	FAR 27-01268	630501	FACTORY	YES	BENDIX-PACIFIC MO 1030283-11-WA
993069	FAILURE MODE-STRUCTURAL. OSCILLATOR OUTPUT COULD NOT BE ADJUSTED DUE TO THE OUTPUT POTENTIOMETER BEING FROZEN. THE EXACT CAUSE OF THE FAILURE COULD NOT BE DETERMINED SINCE THE EVIDENCE WAS DESTROYED DURING OPENING OF THE UNIT.					
993069	CORRECTIVE ACTION-NONE.					
993069	INSTRUMENTATION-A/B A-99-24-3494-F TELEMETRY SET AND TRANSDUC OSCILLATOR/RESISTOR ERS	FAR 27-01268-57	630501	FACTORY	YES	BENDIX PACIFIC MO 103-0283-10-1- A
993069	FAILURE MODE-OUT OF TOLERANCE. THE OUTPUT POTENTIOMETER COULD NOT BE ADJUSTED FOR THE REQUIRED VOLTAGE DEVIATION. T HE UNIT HAD EXCEEDED ITS USEFUL LIFE AND THE POTENTIOMETER WAS STICKING SO TIGHTLY THAT TO INCREASE THE TORQUE ON A SCREWDRIVER WOULD DESTROY THE UNIT.					
993069	CORRECTIVE ACTION-ALL FUTURE PROPOSALS WILL SPECIFY PACKAGES OTHER THAN 87-01268-57.					
993069	INSTRUMENTATION-A/B SP-AS-24-3503-F TELEMETRY SET AND TRANSDUC AMPLIFIER, WIRING ERS	FAR 27-01193-1	630500	SD	YES	MAYBERRY NO
993069	FAILURE MODE-ERRATIC OPERATION. 6 AMPLIFIERS REJECTED. FAILURES CONFIRMED. THE ANALYSIS SECTION DATA SHOWS EACH CHA NNEL TO BE EXCESSIVELY NOISY AND AMPLIFIERS TO BE MICROPHONIC UNDER VIBRATION. COLD HOLDER JOINTS FOUND IN THE AMPLI FIER					

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
PIER COULD HAVE CAUSED ERRATIC AMPLIFIER OPERATION.						
CORRECTIVE ACTION-RAR SP-AS-24-3884, 12 JUNE 1983 REQUESTED THE VENDOR STUDY THE NOISE PROBLEM AND MODIFY THE AMPLIFIER DESIGN TO USE NONVIBRATION SENSITIVE COMPONENTS. THE VENDOR WAS ALSO REQUESTED TO TAKE CORRECTIVE ACTION TO PREVENT RECURRENCE OF COLD-SOLDER CONNECTIONS. VENDOR REDESIGNED AMPLIFIERS AND STARTED NEW SOLDERING TECHNIQUES ON 1 JULY 1983.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER, POTENTIOMETER ERS	N2-98-24-3308-F TELEMETRY SET AND TRANSDUC TLM CANISTER, POTENTIOMETER ERS	FAR 27-01809	630430	FACTORY	YES	SENDIX YES
FAILURE MODE-OPERATION DOES NOT START. GAIN CONTROL POTENTIOMETER DID NOT FUNCTION PROPERLY AS THE AMPLIFIER OUTPUT WAS CONSTANT AT VARIOUS POTENTIOMETER SETTINGS.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED. ADJUSTMENT PROCEDURE WAS REVIEWED AND FOUND ADEQUATE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER, HARNESS ERS	AC083-001-11/PC-CO-02-00Y1-001 TELEMETRY SET AND TRANSDUC TLM CANISTER, HARNESS ERS	COMPOSITE-FACTORY 630429 69-11100-3	7101 630429		YES NO	SENDIX NO
FAILURE MODE-FAILED DURING OPERATION. TELEMETRY NO. 2 CHANNEL 8 WAS MONITORING 115VAC PHASE A WHEN PHASE C WAS INTENDED TO BE MONITORED, DUE TO A WIRING ERROR IN TELEMETRY NO. 1. (REF IR 972966)						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEM LEVEL AND COMPOSITE RETEST REQUIRED.						
CORRECTIVE ACTION- TLM CANISTER WAS REMOVED AND REMOVED TO CORRECT INTERNAL WIRING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER, HARNESS ERS	SP-90-24-3674-C TELEMETRY SET AND TRANSDUC TLM CANISTER, HARNESS ERS	FAR 27-12651-3	630427	WTR	YES NO	UNITED ELECTRO DYNAMICS 14363-1H
FAILURE MODE-FAIL DURING OPERATION. TELEMETRY SIGNALS FROM THE MISSILE SUDDENLY STOPPED DURING A RUN OF PROCEDURE 8 7-84448-1. FAILURE ANALYSIS WAS CANCELED. THE TRANSMITTER WAS SENT TO THE VENDOR FOR FAILURE ANALYSIS.						
CORRECTIVE ACTION-NONE.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR/MOTOR ERS	SP-99-24-3432-F TRANSDUC COMMUNICATOR/MOTOR	FAR 87-18648-803	2120 930428	FACTORY	YES NO	YES U.E.D. NO 14364-6	898009
FAILURE MODE-CONTAMINATION. 10 RPS COMMUNICATOR SHOWED TOO MUCH SPEED VARIATION. THE COMMUNICATOR MOTOR WAS DISASSEMBLED AND LARGE QUANTITIES OF CARBON WERE FOUND IN AND AROUND THE SPEED GOVERNOR CONTACT AREA. THE CONTACT POINTS SHOWED SIGNS OF BURNING AND PITTING							
CORRECTIVE ACTION-UNKNOWN-IT WAS REQUESTED THAT DC COMMUNICATORS BE PURGED AND ONLY AC COMMUNICATORS BE USED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER-TELEMETRY RF NO.2 ERS	CO/463-0120/PI-801-00-135 TRANSMITTER-TELEMETRY RF NO.2	COUNTDOWN	135F 930428	ETR	YES NO		893719
FAILURE MODE-FAIL DURING OPERATION. TELEMETRY RF NO.2 DROPPED OUT.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-COUNTDOWN DELAYED. A 30-MINUTE HOLD WAS CALLED TO REPLACE RF NO.2.							
CORRECTIVE ACTION-TELEMETRY RF NO.2 WAS REMOVED AND REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR-MOTOR ERS	SP-99-24-3467-C COMMUNICATOR-MOTOR	FAR NONE	930428	FACTORY	YES NO	YES REED AND REESE NO 1096485-38	898316
FAILURE MODE-ERRATIC OPERATION. 2.3 RPS D-C GEARMOTOR OPERATED INTERMITTENTLY. FAILURE ANALYSIS WAS CANCELED SINCE THE REED AND REESE GEARMOTOR IS NO LONGER BEING MANUFACTURED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BAND PASS FILTER ERS	A-99-24-3450-F BAND PASS FILTER	FAR 87-01895-3	930428	FACTORY	YES NO	YES HERMETIC SEAL NO 933-2200-400	
FAILURE MODE-OPEN (ELECTRICAL). THE BANDPASS FILTER FAILED WHEN THE LIMITER FILTER OUTPUT WAS GREATER THAN THE MAXIMUM SPECIFIED. THE BANDPASS FILTER WAS OPENED AND A COLD SOLDER CONNECTION WAS FOUND. TWO CAPACITORS WERE BROKEN DURING THE ANALYSIS SO NO FURTHER TESTING COULD BE PERFORMED. THE FAILURE WAS CAUSED BY THE COLD SOLDER JOINT.							
CORRECTIVE ACTION-REAR A-99-24-3451 INITIATED QC CORRECTIVE ACTION BY RECOMMENDING CHANGES IN THE VENDOR INSPECTION							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
PROCEDURES.							996106
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BAND PASS FILTERS ERS	A-99-24-3444-F	FAR 87-01288-3	830423	9AM 01-3	YES NO	YES NO ENTB AC13030-3	996125
FAILURE MODE-STRUCTURAL. TWO LIMITER-FILTERS DID NOT PASS EOP 330.804 PARAGRAPH 9.18.1. REQUIRING THE OUTPUT AT 873 CPS BE NOT MORE THAN 17.6 PERCENT OF THE PEAK OUTPUT. THE INDUCTORS WERE DISASSEMBLED AND SEVERAL LAMINATIONS WERE FOUND SEPARATED.							
CORRECTIVE ACTION-SURVEY ALL 27-01293 BAND PASS FILTERS IN STOCK TO THE REQUIREMENTS OF THE SPEC CONTROL DRAWING. TEST THE BAND PASS FILTERS IMMEDIATELY BEFORE INSTALLATION IN LIMITER FILTERS. VENDOR WAS NOTIFIED TO TAKE ACTION TO PREVENT LAMINATIONS OF INDUCTORS FROM SEPARATING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER ERS	BP-90-24-4032-F	FAR 27-12385-871	1190 630422	WTR	YES NO	YES NO 27-12385-871	994472
FAILURE MODE-FAIL DURING OPERATION. NO INDICATION FROM MEASUREMENT AS10T.							
CORRECTIVE ACTION-UNKNOWN. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER/COMMUTATOR ERS	A-99-24-3429-F	FAR 27-12848-803	2120 630419	FACTORY	YES NO	YES NO U.E.D. 14384-6	998004
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 14 COMMUTATOR RAN INTERMITTENTLY. THE SET SCREWS SECURING THE GEAR TO THE SH APT IN THE COMMUTATOR WERE NOT TIGHT.							
CORRECTIVE ACTION-VENDOR REVISED HIS QUALITY CONTROL AND INSPECTION PROCEDURES TO PREVENT RECURRENCE OF THIS MODE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	/P1-6CO-02-139	COMPOSITE-J FACT	133F 630419	11 80	YES NO		
FAILURE MODE-OUT OF TOLERANCE. RFA INTRODUCED FEED BACK INTO RFI MEASUREMENT 83030 B1 YAW. IN THE FORM OF SMALL AMP LITUDOE OSCILLATIONS FROM 80 TO 40 SECONDS. THIS ALSO OCCURRED ON TEST P1-6CO-01-138 (FROM 85 TO 96 SECONDS).							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-NONE.							007400
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER ERS	CT-89-24-146-P	FAR 87-01877-83	830419	FACTORY	YES	GULTON MO KA-1008K	003119
FAILURE MODE-ELECTRICAL OPEN CIRCUIT FROM BROKEN PICKUP LEAD WIRE AT PIN CONTACT.							
CORRECTIVE ACTION-RECOMMENDED IMPROVED INSTALLATION PROCEDURES AT GO/C AND BETTER VENDOR QUALITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER ERS	CT-69-24-140-P	FAR 7-01633-9	830419	FACTORY	YES	LEWIS ENG. MO 848340	003103
FAILURE MODE-STRUCTURAL FAILURE OF THE CERAMIC SENSING ELEMENT MANDREL. VISUAL INSPECTION FOUND THE MANDREL WAS CRA CKED. THE DAMAGE PROBABLY OCCURRED BY IMPROPER HANDLING.							
CORRECTIVE ACTION-RECOMMENDED THAT GO/C PERSONNEL EXERCISE GREATER CARE IN HANDLING, OPERATING, AND TESTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-RESISTOR ERS	SP-99-24-3398-F	FAR 87-11616-823	197-D	FAC	YES	GO/C MO	006470
FAILURE MODE-OUT OF TOLERANCE. THE PRE-FLIGHT CALIBRATOR GAVE OFF 2 POSITIVE PULSES IN SEQUENCE WHEN THEY SHOULD HA VE BEEN ALTERNATELY POSITIVE AND NEGATIVE. THE FAILURE WAS TRACED TO A 3.8 MEGOHM RESISTOR WHICH WAS OUT OF ITS RESU INED PLUS OR MINUS 9 PCT. TOLERANCE. ALSO A COLD SOLDER JOINT WAS NOTED ON THE RESISTOR LEAD.							
CORRECTIVE ACTION-VENDOR LITERATURE TO BE INVESTIGATED TO FIND A RESISTOR WITH TIGHTER TOLERANCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR RELAY ERS	AX63-0003-187D/FC-CO-03-0081-001	COMPOSITE-FACTORY	197D		YES		
		830417			NO		
		87-11616-823					
FAILURE MODE-ERRATIC OPERATION. TWO POSITIVE (100 PCT) PRE- FLIGHT CALIBRATION PULSES WERE OBSERVED IN SEQUENCE AT VARIOUS TIMES DURING THE CALIBRATION PORTION OF THE TEST. ALSO, THE INTERVAL BETWEEN SOME OF THE PULSES WAS LESS THA N THE MINIMUM OF 6 SECONDS ALLOWED. THIS CONDITION WAS CAUSED BY A FAULTY CALIBRATION RELAY IN THE ACCESSORY PACKAGE							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SIZE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED. CORRECTIVE ACTION-THE ACCESSORY PACKAGE WAS REPLACED.						99840
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER-TRANSFORMER ERS	SP-AS-24-3283-F 88-01178-1	FAR	830416	FACTORY	YES	HAYBERRY MO 166-1	993419
	FAILURE MODE-OPEN (ELECT). OUTPUT VOLTAGE DISAPPEARED DURING VIBRATION. WITH 5 MILLIVOLTS IN THE OUTPUT WAS .5 VOLT 8 PEAK TO PEAK WHEN 5.0 PLUS OR MINUS .5 WAS SPECIFIED. CORRECTIVE ACTION-AMPLIFIERS REDESIGNED WITH A NEW TRANSFORMER. COLD SOLDERING JOINTS CORRECTED BY NEW SOLDERING TECHNIQUES.						997976
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER-WIRING ERS	SP-9D-24-3433-F 87-12842-801	FAR	118D	VAFB	YES	U.E.D. MO 14364-6	997976
	FAILURE MODE-ELECTRICAL OPEN. THE VOLTAGE REGULATOR OUTPUT WAS 26 VDC INSTEAD OF 20 VOLTS DC. AN ELECTRICAL CONNECTION BETWEEN A POTENTIOMETER AND A RESISTOR WAS FOUND NOT CONNECTED. THE WIRE WAS TINNED BUT NEVER SOLDERED. CORRECTIVE ACTION-VENDOR WAS NOTIFIED TO IMPROVE HIS QUALITY CONTROL AND INSPECTION DURING PRODUCTION.						998317
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER CAPACITOR ERS	SP-9D-24-3464-F 99-01149-3	FAR	830412	FACTORY	YES	TEXAS INSTRUMENTS MO HTS 433378-7	998317
	FAILURE MODE-FAIL DURING OPERATION. TRANSMITTER FAILED WHEN THE OUTPUT POWER WAS LOST DURING VIBRATION OF THE TELEMETRY PACKAGE. FAILURE WAS ATTRIBUTED TO CAPACITOR C-119 WHICH WAS SHORTED DIRECTLY TO GROUND, THUS PREVENTING THE CRITICAL SIGNAL FROM GETTING TO THE OSCILLATOR CIRCUIT AND GIVING A NO OUTPUT INDICATION. THE CAPACITOR WAS A TEXAS INSTRUMENTS CAPACITOR. 8VW-8, 151. CORRECTIVE ACTION-RECOMMENDED VENDOR IMPROVE THE WORKMANSHIP OF THESE CAPACITORS BEFORE THEY ARE INSTALLED IN THE TRANSMITTERS.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	SP-99-24-3364-F TELEMETRY SET AND TRANSDUC OSCILLATOR	FAR 27-11841-913	197-D 830410	FACTORY	YES	BENDIX
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER ERS	A-99-24-3418 TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER	FAR 27-12479-1	830410	FACTORY	NO	KINETICS NO 97-12479-1
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT ON CHANNELS 1 AND 2. TEST SET YET 3950 SERIAL NUMBER 2 APPLIED EXCESSIVE VOLTAGE AND CAUSED A CAPACITOR, DIODE AND INDUCTOR TO FAIL.						
CORRECTIVE ACTION-ALL TESTING WILL BE DONE ON TEST SET YET 3953 WHICH DOES NOT SUPPLY AN OVERVOLTAGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	SP-99-24-3366-F TELEMETRY SET AND TRANSDUC TLM CANISTER	FAR 27-11841-913	197-D 630409	FACTORY	NO	BENDIX NO
FAILURE MODE-ERRATIC OPERATION-SPIKING ON CHANNEL 14 WAS CAUSED BY AN INCORRECT CONNECTION AT THE GROUND STATION. NO DISCREPANCY EXISTED ON THE AIRBORNE EQUIPMENT.						
CORRECTIVE ACTION-ALL PERSONNEL CONNECTED WITH THE TESTS AT THE GROUND STATION WERE INSTRUCTED IN THE PROPER USE OF THE TEST EQUIPMENT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONVERTER CIRCUIT BOARD ERS	SP-99-24-4090-F TELEMETRY SET AND TRANSDUC CONVERTER CIRCUIT BOARD	FAR 27-12642-801	119D 630403	WTR	YES	UNITED ELECTRO NO DYNAMICS ADK17
FAILURE MODE-SHORT (SELECT). SIGNAL CONVERTER FAILED DURING PROCEDURE 27-94443-1 AT WTR WHEN SEGMENTS 15-8, 14-12 AND 14-14 WERE NOISY. FAILURE WAS CONFIRMED. FAILURE ANALYSIS INDICATED NOISE ON ALL SEGMENTS OF CHANNELS 14 AND 15. CAUSE WAS ATTRIBUTED TO THE -3D VOLT LINE SHORTING TO A BARE WIRE PROTRUDING FROM ITS INSULATION. THE WIRE WAS TRACED TO PIN A OF J-114, THE SIGNAL GROUND TEST POINT.						
CORRECTIVE ACTION-REQUESTED ASTRONAUTICS INSPECTION OF THE WHOLE CIRCUIT BOARD AFTER MODIFICATION.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	AX63-0003-1970/FC-CO-01-0081-001 COMPOSITE-FACTORY 87-11841-913	COMPOSITE-FACTORY 630404	197D 630404	FACTORY	YES NO		000001
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 13 OPERATES 2 PCT TO 3 PCT BELOW THE LOW FREQUENCY BAND EDGE.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEM LEVEL AND COMPOSITE RETESTING REQUIRED.							
CORRECTIVE ACTION-REPLACED TELEMETRY R.F. NO. 1 CANISTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-TUBE ERS	8P-99-24-3392-F TELEMETRY SET AND TRANSDUC OSCILLATOR-TUBE	FAR 87-11841-913	197-D 630404	FACTORY	YES NO	YES BENDIX NO 1040962-48	000339
FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR FOR CHANNEL 15 WAS OUT OF BAND ON THE LOW-FREQUENCY SIDE. SUBSEQUENT TESTING VERIFIED THE FAILURE AND PIN POINTED THE FAILURE AS EXCESSIVE DRIFT OF THE NO. 2 SECTION OF THE V-1 TUBE.							
CORRECTIVE ACTION-NONE. THE CAUSE OF THE EXCESSIVE DRIFT OF THE V-1 TUBE COULD NOT BE FOUND.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR ERS	N2-99-24-3463-F TELEMETRY SET AND TRANSDUC DEMODULATOR	FAR 57-13336-1	630404	CONVAIR	YES NO		000494
FAILURE MODE-OUT OF TOLERANCE. OUTPUT OF THE DEMODULATOR BECAME ERRATIC DURING VIBRATION TESTING WHEN THE NOISE LEVEL WAS APPROXIMATELY 20 PERCENT. SPECIFICATIONS ALLOW A MAXIMUM OF 4 PERCENT NOISE. FAILURE WAS ATTRIBUTED TO AN IMPROPER SOLDER CONNECTION BETWEEN THE LEAD AND TERMINAL OF CHOKE L-8 IN CHANNEL 8.							
CORRECTIVE ACTION-RECOMMENDED VENDOR OF THE CHOKE ASSEMBLY REVIEW SOLDERING TECHNIQUES AND INSPECTION PROCEDURES TO DETERMINE WHAT CHANGES ARE NECESSARY TO PREVENT RECURRENCE OF THIS TYPE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	A-10-24-3445-F TELEMETRY SET AND TRANSDUC AMPLIFIER	FAR	630403	FACTORY	YES NO	BENDIX NO 1077064-3A	
FAILURE MODE-OUT OF SPECIFICATION. THE AMPLIFIER REPORTEDLY FAILED WITH AN OUTPUT OF 8.9 WATTS WHEN THE OUTPUT SHOULD BE 7.0 WATTS MINIMUM. THE AMPLIFIER WAS FUNCTIONALLY TESTED FOR 3 HOURS, AND THE OUTPUT WAS 9 WATTS. THE REPORTED FAILURE WAS NOT CONFIRMED. A FUNCTIONAL AND VISUAL CHECK FAILED TO REVEAL ANY MALFUNCTIONS OR DEFECTS.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN SINCE THE FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR ERR	A89-24-34887	FAR 27-12291-1	800D 830403	FACTORY	NO	6D/C NO 27-12291-1
FAILURE MODE-FAILED TO OPERATE AT THE PRESCRIBED TIME. THE RELAYS IN THE IN-FLIGHT CALIBRATION UNIT FAILED TO OPERATE WHEN SUPPLIED WITH NOMINAL VOLTAGE. THE FAILURE WAS NOT CONFIRMED.						
CORRECTIVE ACTION-REJECTING DEPARTMENT INFORMED THE REPORTED FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER. ERR	89C-2040.3	UTP-PRT 69-01009-31	830402	6D/C	NO	BOURNS NO 2007371703
FAILURE MODE-OUT OF SPECIFICATION. OBSERVED MAXIMUM ERROR WAS PLUS 1.41 PERCENT. ALSO, ON 4-3-63, A MAXIMUM ERROR OF PLUS 1.29 PERCENT WAS OBSERVED. SPECIFIED TOLERANCE IS PLUS 1.0 PERCENT AND THE INSTRUMENT ERROR IS 0.14 PERCENT. ON THE RESOLUTION TEST (4-3-63) 13.7 PERCENT OF THE DISCRETE STEPS WERE GREATER THAN 0.25 PERCENT F80 AND 2 WERE GREATER THAN 0.50 PERCENT F80. SPECIFIED IS NOT OVER 3 PERCENT AND NOT OVER ZERO RESPECTIVELY.						
CORRECTIVE ACTION-NONE. FAILURES WERE NOT CONFIRMED AT VENDORS FACTORY OR AT 6D/C AFTER THEIR RETURN. ATTRIBUTED TO HUMAN ERROR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ELECTRONIC TUBE ERR	A-99-24-3454-F	FAR 27-01272-13	830401	FACTORY	YES	BENDIX NO 1052060-12-2-A
FAILURE MODE-ERRATIC OPERATION. TRANSMITTER FAILED WHEN IT OPERATED INTER-MITTENTLY. THE FAILURE WAS CONFIRMED AND ATTRIBUTED TO A DEFECTIVE TUBE. THE PLATE RESISTANCE OF THE TUBE HAD DECREASED BY APPROXIMATELY 100 KILOHMS. THE TUBE HAD NO SHORT BUT WAS INCOMPATIBLE WITH THE REST OF THE CIRCUIT. THE TUBE WAS A V35702 TYPEPENTODE. N/A 27-11341						
CORRECTIVE ACTION-RECOMMENDED VENDOR TAKE ACTION TO PREVENT FAILURES OF THIS MODEL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER-WIRING ERR	8P-86-24-3389-F	FAR 27-01277-15	78-F 830389	8YC	YES	CULTON NO RA-10086
FAILURE MODE-OPEN (ELECT). THE ACCELEROMETER CONSISTS OF A SENSING HEAD AND A TRANSISTORIZED AMPLIFIER. A BROKEN WIRE TO PIN A OF THE CONNECTOR WAS FOUND.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							000332
	CORRECTIVE ACTION-60/C REQUESTED PROTECTIVE SLEEVING BE ADDED AT WIRE LEAD TERMINATION BECAUSE OF SEVERE BENDING AT THIS POINT DURING ASSEMBLY OF THE AMPLIFIER. DOCUMENTED IN RAR SP-86-24-377.8.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	HC-88-24-3398-1	FAR 87-93900-148	130-0 630328	ETR. COM PL 14	YES NO	YES BOURN 800-8092-008	007835
	FAILURE MODE-ERRATIC OPERATION. AN ACCELEROMETER CIRCUIT SHOWED A REPEATED INTERMITTENT OPEN.						
	CORRECTIVE ACTION-NONE COULD BE TAKEN, SINCE THE ACCELEROMETER WAS NOT FAILURE ANALYZED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-98-24-3490-7	FAR 27-01888-3	630328	FACTORY	YES NO	YES BENDIX-PACIFIC NO 1050283-4-6-A	003090
	FAILURE MODE-DRIFT. SUBCARRIER OSCILLATOR OUTPUT FREQUENCY WAS FOUND TO DRIFT.						
	CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-4814-P	FAR 27-01884-831	2160 630328	FACTORY	YES NO	YES BENDIX	002686
	FAILURE MODE-OUT OF TOLERANCE. THE OSCILLATOR HAD A SHIFT IN THE BANDWIDTH OF 8 PERCENT. THE SPECIFIED LIMITS ARE 10 PERCENT. THE REPORTED FAILURE OR THE OSCILLATOR DUE TO VIBRATION WAS NOT CONFIRMED.						
	CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-90-24-3438	FAR 27-01843	1900 630328	PALC-3	YES NO	YES COLVIN 401-A-10-78	
	FAILURE MODE-EXTERNAL LEAK. THE TRANSDUCER FAILED WHEN IT LEAKED FUEL. DURING INSTALLATION OF THE TRANSDUCER TO THE MISSILE, THE LOCATING PIN ON THE TRANSDUCER WAS NOT ALIGNED WITH THE MOUNTING BRACKET LOCATING HOLE. THIS MISALIGNMENT CAUSED A BREAK IN THE PIN-TO-CASE BRAZE JOINT, CAUSING THE LEAKAGE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE OF TEST	SITE TIME OF TEST	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-SITE PERSONNEL WERE INFORMED OF THE FAILURE AND WERE DIRECTED TO TAKE ACTION TO PREVENT RECURRENCE.							000700
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONNECTOR-WIRING ERS	SP-88-24-3424 TELEMETRY SET AND TRANSDUC CONNECTOR-WIRING ERS	PAR 27-12388-31	2630 030327	FACTORY	YES	BENDIX-PACIFIC NO 313-628-8	007913
FAILURE MODE-ELECTRICAL OPEN. JUMPER WIRE MISSING BETWEEN PINS 9 AND 10 OF RECEPTACLE J-1.							
CORRECTIVE ACTION-VENDOR REVIEWED MANUFACTURING OUTLINE'S AND INSPECTION TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TELEMETRY POWER SUPPLY-TRANSFORMER ERS	A-99-24-3447-F TELEMETRY POWER SUPPLY-TRANSFORMER 27-01228-1 ERS	PAR 27-01228-1	030326	FACTORY	YES	BENDIX NO 1046173-2A	000311
FAILURE MODE-SHORT (ELECTRICAL). THE UNIT FAILED DURING ACCEPTANCE TESTING WHEN EXCESSIVE INPUT POWER WAS OBSERVED. FUNCTIONAL TESTING CONFIRMED THE FAILURE. THE UNIT DREW EXCESSIVE CURRENT. EXAMINATION OF THE TRANSMITTER SHOWED EVIDENCE OF OVERHEATING. THE EXCESS CURRENT CONDITION IS ATTRIBUTED TO A SHORT IN THE PRIMARY WINDING.							
CORRECTIVE ACTION-RAR A-99-24-3506 INFORMED THE VENDOR OF FAILURE AND RECOMMENDED INSPECTION OF THIS TYPE TRANSFORMER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC LIMITER FILTER ASSEMBLY ERS	A-99-24-3413-F TELEMETRY LIMITER FILTER ASSEMBLY ERS	PAR 27-12300-5	030326	FACTORY	YES	CD/C NO	000404
FAILURE MODE-OUT OF TOLERANCE. NO OUTPUT AFTER 1 HOUR AND 15 MINUTES OF OPERATION IN THE TELEMETRY PACKAGE. FAILURE CAUSED BY TANTALUM CAPACITOR BEING INSTALLED WITH REVERSED POLARITY. THIS CAUSED TRANSISTOR FAILURE.							
CORRECTIVE ACTION-NEW EOP RELEASED TO CHECK AND RECORD REQUIREMENTS PRIOR TO INSTALLATION INTO THE TELEMETRY PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-WIRING ERS	A-99-24-3408-F TELEMETRY OSCILLATOR-WIRING ERS	PAR 27-01268-39	1387 030328	FACTORY	YES	BENDIX NO 1030283-11-T-A	
FAILURE MODE-STRUCTURAL. NO OUTPUT DURING VIBRATION TEST. FILAMENT WIRE CONNECTION BROKE TO TUBE V-1 CAUSING FAILURE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE TIME OF DAY	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-BURN-IN ADDED AS A TEST REQUIREMENT FOR THE SUBCARRIER OSCILLATOR.							993101
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC HARNES-CONNECTOR ERS	8P-99-24-3384-F	FAR 27-17288-1	TSO 830322	WTR	YES NO		998098
FAILURE MODE-ERRATIC OPERATION. WIRE WAS NOT FULLY INSERTED IN THE PIN BACKSIDE OF THE PLUG BEFORE SOLDERING. A LOO BE BACKSHELL ALLOWED SOLDER TO BREAK WHEN THE HARNES WAS FLEXED.							
CORRECTIVE ACTION-SOLDERING TECHNIQUES WERE UPDATED AND ALL PERSONNEL CONCERNED WERE SHOWN THE EFFECTS OF A POOR SO LDER JOINT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-WIRING ERS	A-99-24-3407F	FAR 27-12573-893	133F 830322	FACTORY	YES NO	1030283-5-6-A	997910
FAILURE MODE-ELECTRICAL SHORT. FAILURE WAS CAUSED BY WIRE BEING PINCHED AND SHORTING TO GROUND.							
CORRECTIVE ACTION-VENDOR IMPROVED MANUFACTURING AND INSPECTION PROCEDURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-TUBE ERS	A-99-24-3383-F	FAR 27-11941-913	197-D 830322	FACTORY	YES NO		997281
FAILURE MODE-ERRATIC OPERATION CAUSED BY AN UNSTABLE VACUUM TUBE WITHIN THE OSCILLATOR.							
CORRECTIVE ACTION-A PROGRAM WAS INITIATED TO BURN-IN SUBCARRIER OSCILLATORS TO ELIMINATE THEIR UNSTABLE CHARACTERIS TIC. TEST PROCEDURES AND EOP HAVE BEEN REVISED TO IMPLEMENT THIS PROGRAM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ENGINE VALVE POSITION TRANSDUCER ERS	8P-18-20-224-7	FAR	TSO 830322	FACTORY	YES NO		994848
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER WAS 20 PERCENT HIGH. TRANSDUCER WAS REPLACED.							
CORRECTIVE ACTION-UNKNOWN. DEFERRED TO ROCKETDYNE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	A0J83-0034/08-601-00-03	FLIGHT	83F 830321	OSTF-E D	YES NO	YES 60/C	898498
FAILURE MODE-ERRATIC OPERATION. TELEMETRY SYSTEM OPERATION WAS MARGINAL DUE TO A SEVERE NOISE PROBLEM. SYSTEM EFFECT-ERRATIC OPERATION. RECEIVED SIGNAL WAS HIGH AND OF GOOD QUALITY INDICATING THAT THE NOISE WAS GENERATED BY THE AIRBORNE TELEMETRY SYSTEM. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	SP-99-24-3425F	FAR 87-18206-1	134D 830321	FACTORY	YES NO	ASTRONAUTICS	897914
FAILURE MODE-OUT OF SPECIFICATION. DURING EOP TESTING AMPLIFIER WOULD NOT ZERO. PROBLEM OCCURRED BECAUSE OF AN EXTREMELY HIGH GAIN SETTING IN THE GAIN POTENTIOMETER. THE AMPLIFIER OPERATED NORMALLY AFTER GAIN SETTING WAS MADE PRIOR TO ZERO SETTING. CORRECTIVE ACTION-EOP WAS REVISED TO SHOW GAIN SETTING PRIOR TO ZERO SETTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-SOLDER CONNECTION ERS	A-89-24-3370-F	FAR	197-0 830320	FACTORY	YES NO	BENDIX NO 1096483-38	898331
FAILURE MODE-ERRATIC OPERATION. A COLD SOLDER JOINT CONNECTING THE BLACK POWER LEAD TO ABRUSHHOLDER WAS FOUND. CORRECTIVE ACTION-VENDOR WAS INFORMED OF THE FAILURE AND REQUESTED TO IMPROVE THEIR SOLDERING TECHNIQUE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-89-24-3833F	FAR 7-01731-5	830319	FACTORY	YES NO	BOURNS NO 71724-D-10-758	
FAILURE MODE-LEAK. OUTPUT VOLTAGE WAS BELOW SPECIFICATION. FAILURE WAS DUE TO LEAKAGE AT THE BOURDON TUBE-TO PRESSURE-PORT BRAZE JOINT. LEAKAGE AT THIS JOINT ALLOWED HIGH PRESSURE TO ENTER THIS EVACUATED AND HERMETICALLY SEALED UNIT, CAUSING A LOW-OUTPUT VOLTAGE READING. CORRECTIVE ACTION-VENDOR STATED BRAZING HAS BEEN UPGRADED ON ALL BOURNS INSTRUMENTS AS A RESULT OF PERSONNEL ATTEND							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
ING HAWY AND HAWYON BRAZING INSTRUCTION AND SUBSEQUENT IN PLANT INSTRUCTION.							092724
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR ERS	A-99-24-3399	FAR 7-18077-13	030310	FACTORY	YES NO		091048
FAILURE MODE-OUT OF TOLERANCE. COMPONENT FAILED WHEN ITS GAIN WAS HIGH OUT OF SPECIFICATION AFTER POTTING. CHANNEL 1 SHOWED TOO HIGH A GAIN DURING THE HIGH GAIN TESTS. DEMODULATOR FAILURE WAS DUE TO THE UNBALANCE IN THE CHANNEL 1 D LOOSE BRIDGE NETWORK.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER/MIXING/ ERS	BP-99-24-3397-F	FAR 27-12479-3	030310	FACTORY	YES KINETICS NO M726		093976
FAILURE MODE-OPEN (ELECT). CHANNEL 2 COULD NOT BE ADJUSTED AWAY FROM A CONSTANT OUTPUT OF 0.785 VOLTS DC. THE STRANDED LEAD, CARRYING THE 28 VOLT DC INPUT TO THE CHANNEL 2 POWER INPUT (E-1), HAD SEPARATED FROM THE CIRCUIT BOARD TERMINAL RESULTING FROM A DEFECTIVE SOLDER JOINT.							
CORRECTIVE ACTION-SD/C REQUESTED THE VENDOR TO IMPROVE QUALITY CONTROL AND INSPECTION PROCEDURES AS DOCUMENTED IN RAR-BP-99-24-3776.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-POTENTIOMETER ERS	A 19-24-3409-F	FAR 27-01268-18	3-E 030314	FACTORY	YES BENDIX NO 1050283-10-6-A		097912
FAILURE MODE-ELECTRICAL OPEN. OUTPUT WAS UNSTABLE WHEN THE OSCILLATOR WAS TAPPED LIGHTLY. FAILURE CAUSED BY INTERNAL POTENTIOMETER WIPER CONTACT.							
CORRECTIVE ACTION-VENDOR IMPROVED INSPECTION PROCEDURES TO INSPECT ALL POTENTIOMETER OF THIS TYPE 100 PCT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER ERS	BP-24-2401F	FAR 27-12208-1	030314	FACTORY	YES NO		
FAILURE MODE-SHORT (ELECT). THE AMPLIFIER AND FILTER ASSEMBLY FAILED WHEN IT SHOWED NO OUTPUT. WHEN INSTALLED IN THE NEXT ASSEMBLY, THE AMPLIFIER FUNCTIONED PROPERLY, BUT THE BANDPASS FILTER DISPLAYED NO OUTPUT FOR ALL INPUTS. FAILURE OF THE AMPLIFIER AND FILTER ASSEMBLY WAS DUE TO AN INTERNAL SHORT CIRCUIT IN THE SEALED FILTER.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-FAILURE ANALYSIS REQUESTED THE FILTER VENDOR BE REQUIRED TO IMPROVE QUALITY CONTROL PROCEDURES, FILTER BE MODIFIED.						
INSTRUMENTATION-AVB	A-98-24-3449-F	FAR	830313	FACTORY	YES	BENDIX
TELEMETRY SET AND TRANSDUC	OSCILLATOR TUBE ELECTRONIC	87-01853-3			NO	1041982-3-K
ERS						
FAILURE MODE-ERRATIC OPERATION. THE FREQUENCY OF THE OSCILLATOR WAS UNSTABLE AND SENSITIVE TO VIBRATION. REPLACEMENT OF THE TUBES ELIMINATED THE CONDITIONS. THE FAILURE WAS CAUSED BY CHANGES IN THE TUBE CHARACTERISTICS.						
CORRECTIVE ACTION-FAR A-98-24-3320 WAS GENERATED. THIS FAR RECOMMENDS THAT THE CIRCUIT BE DESIGNED TO COMPENSATE FOR SUCH CHANGES IN TUBE CHARACTERISTICS OF ESTABLISH A RECYCLE PERIOD FOR CHANGING TUBES.						
INSTRUMENTATION-AVB	MZ-90-24-3597-F	FAR	1930	WTR	YES	BENDIX-PACIFIC
TELEMETRY SET AND TRANSDUC	TLM CANISTER-TRANSMITTER	87-18765-803	830313		NO	
ERS						
FAILURE MODE-ERRATIC OPERATION. DURING CHECKOUT OF THE TELEPAA, THE CARRIER FREQUENCY VARIED OVER A TWO MEGACYCLE RANGE. FAILURE WAS CONFIRMED. CAUSE WAS ATTRIBUTED TO THE TRANSMITTER NOT BEING TUNED PROPERLY. THE TRANSMITTER IS TUNED BY ADJUSTING THE OUTPUT FREQUENCY TO THE LOW SIDE OF THE OPTIMUM FREQUENCY SETTING. THIS CAUSED TEST POINT 2 TO BE NEGATIVE WITH RESPECT TO TEST POINT 1 THEREBY EXHAUSTING THE DISCRIMINATOR PORTION OF THE TRANSMITTER TO LOCK ONTO THE CORRECT FREQUENCY. THE VENDOR DOES NOT USE THIS METHOD.						
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO INCLUDE THE PRACTICE OF TUNING TEST POINT 2 NEGATIVE COMPARED TO TEST POINT 1 IN CHECKOUT PROCEDURES FOR THE TRANSMITTER.						
INSTRUMENTATION-AVB	A-98-24-3372-F	FAR	830313	FACTORY	YES	BENDIX
TELEMETRY SET AND TRANSDUC	POWER SUPPLY/CAPACITOR	87-01873-3			NO	1951447-4-3
ERS						
FAILURE MODE-SHORT ELECTRICAL/. THE POWER SUPPLY UNIT DREW INPUT CURRENT IN EXCESS OF 8.0 AMPERE SPEC. ALLOWANCE. SECTION 2 DREW 5.0 AMPERES AT 18V DC APPLIED /SPEC IS 8.0 AMPERES AT 80V DC/. A MALLORY 8 MFD 170 MVDC CAPACITOR /C-113 IN THE 180V OUTPUT CIRCUIT/ WAS SHORTED.						
CORRECTIVE ACTION-FAR A-98-24-3806 WAS SENT TO THE VENDOR.						

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SYSTEM	TEST/REPORT NUMBER	DIF DATA SOURCE	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME	VENDOR PART NO
808-SYSTEM							
INSTRUMENTATION-A/B	A-89-24-3308-F	FAR	1937	FACTORY	YES	BENDIX	PACIFIC
TELEMETRY SET AND TRANSDUC TLM CALIBRATOR		87-15875-898	630318		NO		
ERS							997807
FAILURE MODE-OUT OF TOLERANCE. DURING FACTORY CHECKOUT: THE OUTPUT OF CHANNEL 11 WAS HIGH, BUT COULD NOT BE CONFIRMED BY FUNCTIONAL TESTING.							
CORRECTIVE ACTION-NONE. REPORTED FAILURE COULD NOT BE CONFIRMED.							
INSTRUMENTATION-A/B	N2-99-24-3352-F	FAR	630318	FACTORY	YES		
TELEMETRY SET AND TRANSDUC POWER SUPPLY-WIRING		58-13340-3			NO		
ERS							999316
FAILURE MODE-OPEN-ELECTRICAL. OPEN WAS CAUSED BY A HIGH RESISTANCE SOLDER CONNECTION.							
CORRECTIVE ACTION-TRAINING IN ACCEPTABLE SOLDERING TECHNIQUES WAS COMPLETED BY ALL PERSONNEL IN ELECTRONIC PRODUCTION TO IMPROVE QUALITY AND WORKMANSHIP.							
INSTRUMENTATION-A/B	N2-99-24-4016-F	FAR	630311	FACTORY	YES	BENDIX	
TELEMETRY SET AND TRANSDUC OSCILLATOR/RESISTOR		87-01607-111			NO		
ERS							991070
FAILURE MODE-CRIFY. OSCILLATOR CENTER FREQUENCY DRIFTED FROM 1700 TO 1674 CPS DURING VIBRATION TESTING. FAILURE NOT CONFIRMED. HOWEVER THE OSCILLATOR FAILED THE SPECIFIED TEMPERATURE TEST IN THE LAB. TEMPERATURE COMPENSATING RESISTOR FAILURE CAUSED THE OSCILLATOR TO FAIL THE SPECIFIED TEMPERATURE TEST.							
CORRECTIVE ACTION-NONE. THE CAUSE OF FAILURE WAS NOT DETERMINED.							
INSTRUMENTATION-A/B	N2-99-24-4023-F	FAR	630310	FACTORY	YES	BENDIX	
TELEMETRY SET AND TRANSDUC VIDEO AMPLIFIER, POTENTIOMETER		87-01609-1			NO		
ERS							997807
FAILURE MODE-FAIL DURING OPERATION. GAIN CONTROL POTENTIOMETER WAS REPORTED INOPERATIVE.							
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							

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SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE TIME DIF	PRJ OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER POWER SUPPLY-RESISTOR ERR	SP-89-24-4184-F TELEMETRY SET AND TRANSDUCER POWER SUPPLY-RESISTOR	FAR 88-13340-3	830310	FACTORY	YES	80/C NO
FAILURE MODE-ELECTRICAL SHORT. THE TRANSDUCER POWER SUPPLY FAILED WHEN ADJUSTMENT OF RESISTOR R-19 WOULD NOT BRING THE MINUS 1.25 VOLTS DC WITHIN SPEC. ALSO, RESISTOR R-81 WAS BURNED OPEN ELECTRICALLY. THE FAILURE WAS CONFIRMED. THE RESISTOR WAS PROBABLY DAMAGED AS A RESULT OF AN OVERLOAD OR SHORT IN THE MINUS 1.25-VOLT CIRCUIT.						
CONNECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TLM CANISTER ERR	AJ83-0046/B3-401-00-102 TELEMETRY SET AND TRANSDUCER TLM CANISTER	COUNTDOWN 830309	1020	WTR-B-3 -1444	YES NO	
FAILURE MODE-FAIL DURING OPERATION-DURING THE COUNTDOWN AT 1-7 MINUTES EXCESSIVE CURRENT DRAIN WAS NOTED IN CONNECTION WITH THE ERSS KIT. POWER WAS SWITCHED TO INTERNAL AND THE TELEMETRY SYSTEM FAILED.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. NO TELEMETRY DATA WAS TRANSMITTED DURING THE REMAINDER OF THE COUNTDOWN OR DURING THE FLIGHT.						
VEHICLE EFFECT-NONE. FAILURE ANALYSIS OF THE FLIGHT FAILURE WAS HINDERED BY LACK OF DATA.						
CONNECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TLM CANISTER ERR	AX63-0003-135F/FC-CO-02-0011-021 TELEMETRY SET AND TRANSDUCER TLM CANISTER	COMPOSITE-FACTORY 830309	135F		YES	80/C NO
FAILURE MODE-ERRATIC OPERATION. RF NO. 3 CHANNEL 10 INDICATED EXCESSIVE SPINNING AND NOISE CAUSED BY FAILURE OF RF 3 SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE DELAYED OR RESCHEDULED. SYSTEM AND COMPOSITE RETEST REQUIRED.						
CONNECTIVE ACTION-TELEMETRY 3 RADIO FREQUENCY AIRBORNE PACKAGE WAS REPLACED. PROPER OPERATION WAS VERIFIED DURING COMPOSITE RETEST.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TELEMETRY PACKAGE POWER CHANGE OVE R SWITCH ERR	HC-89-24-3266-F TELEMETRY SET AND TRANSDUCER TELEMETRY PACKAGE POWER CHANGE OVE R SWITCH	FAR 87-12830-818	1300	FACTORY	YES	80/C NO
FAILURE MODE-ERRATIC OPERATION-POWER CHANGEOVER SWITCH FAILED TO RETURN TO EXTERNAL POSITION. THE FUNCTIONAL TESTING REVEALED THAT THE SWITCH WAS OPERATING BUT THAT THE MONITOR CONTACT WAS NOT MAKING CONTACT. FAILURE ANALYSIS REVEA						

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LED A BROWN MATERIAL ON THE MONITOR CONTACTS. THE FAILURE WAS DUE TO THE SWITCH. THE CAUSE OF FAILURE OF THE SWITCH WAS NOT DETERMINED DUE TO LOSS OF EVIDENCE WHILE UNSOLDERING.						
CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN BECAUSE THE CAUSE OF FAILURE WAS DESTROYED WHEN SWITCH WAS OPENED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-3804-F TELEMETRY TAPE RECORDER	FAR	135F 830308	FACTORY	YES NO	APPLIED MAGNET ICB 410-001
FAILURE MODE-FAILED DURING OPERATION. DURING CHECKOUT, THE OUTPUT OF THE TAPE RECORDER HAD ZERO OUTPUT. THE TAPE RECORDER MOTOR WAS NOT PRODUCING A TORQUE SUFFICIENT TO TURN THE TAPE AND TAPE ADHERED TO THE RECORD AND TRANSMITTING MEANS WHEN THE TAPE IS STOPPED.						
CORRECTIVE ACTION-THE VENDOR IS INSTALLING A DIFFERENT INVERTER TO INCREASE THE DRIVING MOTOR OUTPUT POWER. THEY ARE INCREASING THE PRESSURE BETWEEN THE MAGNETIC TAPE DRIVING ROLLER AND PRESSURE ROLLER PERMITTING THE MOTOR TO CREATE SUFFICIENT FORCE TO FREE THE TAPE FROM AN ADHERED CONDITION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A89-24-3309 DIFFERENTIAL AMPLIFIER POTENTIOMETER	FAR	630307	FACTORY	YES NO	KINETICS M-798
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. UNIT WOULD NOT NULL AS REQUIRED BY SPECIFICATION. THE FAILED COARSE GAIN ADJUSTMENT POTENTIOMETER, REFERRED TO AS R-9 ON THE VENDORS DRAWING, CAUSED THE FAILURE. THERE WAS AN OPEN CIRCUIT BETWEEN THE BLADE CONTACT AND THE RESISTANCE STRIP TERMINAL.						
CORRECTIVE ACTION-VENDOR WAS INFORMED OF THE CAUSE OF FAILURE AND REQUESTED TO TAKE NECESSARY ACTION TO PREVENT REOCCURRENCE OF THIS MODE OF FAILURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-3303-F DISPLACEMENT DEMODULATOR-WIRING	FAR	208D 830307	FACTORY	YES NO	607C
FAILURE MODE-OUT OF SPECIFICATION. ON TEST, THE INPUT SIGNAL WOULD DROP FROM 1.47 VOLTS AC TO NEARLY ZERO. SPECIFICATION REQUIRES THE 1.47 VOLTAGE TO REMAIN CONSTANT. THE VOLTAGE DROP INDICATED A 0-1 (EN333) TRANSISTOR SHORT. ACTUALLY THE LEADS WERE REVERSED.						
CORRECTIVE ACTION-UNKNOWN.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	VEHICLE NAME VEHICLE PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC REGULATOR ASSEMBLY, TRANSDUC REGULATOR	A-99-24-3389-F	FAP	630307	FACTORY	YES
ERS		27-11884-8			NO
FAILURE MODE-FAIL DURING OPERATION. ERRATIC OPERATION WAS CAUSED BY A DAMAGED TRANSISTOR. CAUSE OF DAMAGE WAS NOT DETERMINED.					
CORRECTIVE ACTION-RECOMMENDATIONS WERE MADE BY FAILURE ANALYSIS TO MODIFY POTTING PROCESSES TO PREVENT POSSIBLE DAMAGE TO TRANSISTORS.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR-WIRING	A-99-24-3258-F	FAP	630306	FACTORY	YES
ERS		27-12077-5			NO
FAILURE MODE-SHORT (ELECTRICAL). THE DEMODULATOR FAILED WHEN A 15 OHM SHORT CIRCUIT WAS FOUND BETWEEN THE 400 CYCLE INPUT AND THE CORNER MOUNTING STUD. A BURNED PATH BETWEEN THE MOUNTING STUD AND AN ADJACENT SOLDER AREA. ANALYSIS OF THE BURNED PATH INDICATED THAT THE SHORT CIRCUIT WAS CAUSED EITHER BY SOLDER OR A STRAND OF WIRE IN CONTACT WITH THE STUD. THIS FAILURE COULD HAVE BEEN DETECTED IN FINAL USE CONFIGURATION.					
CORRECTIVE ACTION-CLOSER INSPECTION AND INCREASED PRECAUTION TO SEE THAT EXISTING PROCEDURES ARE ADHERED TO.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR WIRING	SP-99-24-3489-F	FAP	630306	FACTORY	YES
ERS		27-01807-921			NO
FAILURE MODE-ELECTRICAL OPEN. BECAME INTERMITTENT DURING VIBRATION TESTING. FAILURE WAS ATTRIBUTED TO THE RED LEAD TO THE FILTER BEING BROKEN. THIS LEAD SUPPLIES THE COLLECTOR VOLTAGE FOR 6-3.					
CORRECTIVE ACTION-REQUESTED VENDOR REVIEW SOLDERING AND POTTING TECHNIQUES AND ALSO REVIEW ITS INSPECTION PROCEDURE					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR	A-99-24-3280F	FAP	133F	FACTORY	YES
ERS		27-12875-605	630305		NO
FAILURE MODE-CONTAMINATION. SUBCARRIER CHANNEL 10 MASTER PULSE DISPLAYED NEGATIVE SPIKING AND SUBCARRIER CHANNEL 6 OSCILLATOR FREQUENCY DRIFTED OUT OF SPECIFICATION. THE CHANNEL 6 DRIFT WAS NOT CONFIRMED. THE CHANNEL 10 PROBLEM WAS CAUSED BY COMMUTATOR CONTAMINATION.					

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CORRECTIVE ACTION-VENDOR LINE PERSONNEL WERE CAUTIONED AGAINST USING COMMUTATOR BRUSHES WITHOUT FIRST CHECKING FOR LOOSE FIBERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC MAGNETIC AMPLIFIER ERS	80-H9-24-3839-F	FAR 80-07800-017	630303	FACTORY	YES MICRONAC NO 12-101-4	097974
FAILURE MODE-OUT OF SPECIFICATION. THE MAGNETIC AMPLIFIER FAILED WHEN FOUND TO BE OPERATING IN A SUBASSEMBLY CALIBRATED FOR 2.4 VOLTS DC WHEN IT SHOULD HAVE BEEN CALIBRATED FOR 5 VOLTS DC. FUNCTIONAL TESTS SHOWED THE UNIT TO BE CALIBRATED FOR 2.4 VOLTS DC OUTPUT. THE FAILURE WAS CAUSED BY FOLLOWING THE WRONG CALIBRATION NOTE ON THE BLUEPRINT.						
CORRECTIVE ACTION-AN AVO WAS WRITTEN TO THE CALIBRATING GROUP REQUESTING THAT THE PERSONNEL PERFORMING THE CALIBRATION BE EXTREMELY CAREFUL TO USE THE CORRECT PROCEDURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER ERS	A-98-24-3380F	FAR 7-01720-5	133F 630303	FACTORY	YES SERVONICS NO H-75	098112
FAILURE MODE-ERRATIC OPERATION. SPIKING AND DISTORTION UP TO 13 PERCENT OF THE INFORMATION BANDWIDTH OCCURRED. FAILURE WAS ATTRIBUTED TO WIPER LIFTOFF AT RESONANCE DUE TO LOW WIPER CONTACT PRESSURE.						
CORRECTIVE ACTION-VGAR 4076-83 WAS WRITTEN REQUESTING THE VENDOR BE INFORMED OF THE FAILURE MODE AND APPROPRIATE QUALITY CONTROL ACTION BE TAKEN DURING MANUFACTURE AND ASSEMBLY TO INSURE PROPER WIPER CONTACT PRESSURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	A-99-24-3279F	FAR 27-18872-845	133F 630304	FACTORY	YES BENDIX NO	098783
FAILURE MODE-CONTAMINATION. CHANNEL 13 MASTER PLUSE HAD NEGATIVE SPIKING UP TO 100 PERCENT LBW. CHANNEL 11 HAD VARYING NEGATIVE GATE. PROBLEMS WERE CAUSED BY CONTAMINATION IN THE CHANNEL 11 AND 13 COMMUTATORS.						
CORRECTIVE ACTION-VENDOR LINE PERSONNEL WERE CAUTIONED AGAINST USING COMMUTATOR BRUSHES WITHOUT FIRST CHECKING FOR LOOSE FIBERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	8F-99-24-3341-F	FAR 87-11841-913	1970 630304	FACTORY	YES NO	097973
FAILURE MODE-OUT OF SPECIFICATION. CHANNEL 4 OSCILLATOR WAS OUT OF ADJUSTMENT AND CHANNEL 18 AND 6 OSCILLATORS EXIST						

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ITED INSTABILITY.							007612
CORRECTIVE ACTION-CD/C INITIATED CORRECTIVE ACTION IN MAP H030080 ISSUED TO REPLACE THE ROUND BENDIX TELEMETRY CANISTER WITH THE LIGHTWEIGHT BENDIX TELEMETRY PACKAGE WHICH UTILIZES A MORE RELIABLE OSCILLATOR.							007612
INSTRUMENTATION-A/B	H6-99-24-3222P TELEMETRY SET AND TRANSDUC CALIBRATOR-TRANSISTOR	FAR 27-12291-1	1300 930304	FACTORY	YES TEXAS INSTRUMENTS	NO NTS	007612
FAILURE MODE-OUT OF TOLERANCE. PREFLIGHT CALIBRATOR OPERATING FOR 14.8 SECONDS WHERE 25 PLUS OR MINUS 10 SECONDS IS EXPECTED IN TELEPAK 27-12290-919. EXAMINATION OF THE CALIBRATOR SHOWED R2, C1, AND Q2 TO BE LOW IN VALUE BUT WITHIN TOLERANCE. REPLACEMENT OF THESE COMPONENTS WITH UNITS WITH NOMINAL VALUES BROUGHT THE OPERATING TIME TO 20 SECONDS WHICH IS NOMINAL. THE FAILURE OF THE PREFLIGHT CALIBRATOR WAS DUE TO A BUILDUP OF TOLERANCES.							007612
CORRECTIVE ACTION-RAR H6-99-24-3728 WAS WRITTEN REQUESTING A WORST CASE ANALYSIS OF THE PREFLIGHT CALIBRATOR (27-12291-1) CIRCUIT. RE-EVALUATION IN THE SELECTION OF COMPONENTS USED AND A TIGHTENING OF THE INDIVIDUAL COMPONENT TOLERANCES.							009637
INSTRUMENTATION-A/B	AX63-0003-1300/FC-CO-03-0004-082 TELEMETRY SET AND TRANSDUC CALIBRATOR	COMPOSITE-FACTORY	1300 930302		YES NO		009637
FAILURE MODE-FAIL DURING OPERATION. THE PREFLIGHT CALIBRATION DURATION WAS LESS THAN 19 SECOND MINIMUM ALLOWED.							009637
SYSTEM EFFECT-OPERATION STOP PREMATURELY.							009637
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEMS LEVEL AND COMPOSITE RETESTING REQUIRED.							009637
CORRECTIVE ACTION-THE TELEPAK WAS REPLACED.							009637
INSTRUMENTATION-A/B	AX63-0003-1357/FC-CO-01-0011-031 TELEMETRY SET AND TRANSDUC TLM CANISTER	COMPOSITE-FACTORY	1357 930301		YES BENDIX	NO	009637
FAILURE MODE-FAIL DURING OPERATION. BANDWIDTH OF RF2 CHANNEL 11 ATTENUATED WHEN SUSTAINER AND VERNIER CUTOFF DISCRETES WERE ACTIVATED. ALSO SPIKING WAS OBSERVED ON THE NEGATIVE RATE OF CHANNEL 13 CAUSED BY FAILURE OF RF 2.							009637
SYSTEM EFFECT-ERRATIC OPERATION.							009637
VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RETEST REQUIRED.							009637
CORRECTIVE ACTION-TELEMETRY 2 RADIO FREQUENCY AIRBORNE PACKAGE WAS REPLACED. PROPER OPERATION WAS VERIFIED DURING COMPOSITE RETEST.							009637

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	AX63-0003-133F/FC-CO-01-0011-031 27-12490-5	COMPOSITE-FACTORY 133F 630301	133F 630301	YES NO	YES NO	986400
<p>FAILURE MODE-ERRATIC OPERATION. NEGATIVE GATE SEGMENT 4 OF RF NO. 1 CHANNEL A INDICATED 12 PER CENT ISM VARIATIONS THROUGHOUT THE TEST. EXACT CAUSE OF FAILURE WAS NOT DETERMINED.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-COMPOSITE RESCHEDULED. COMPOSITE RETEST REQUIRED.</p> <p>CORRECTIVE ACTION-NEGATIVE VARIATIONS COULD NOT BE DUPLICATED AND DID NOT RECUR DURING SUBSEQUENT TESTING. RF 1 WAS CONSIDERED ACCEPTABLE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	AX63-0003-133F/FC-CO-01-0011-031 27-12573-098	COMPOSITE-FACTORY 133F 630301	133F 630301	FACTORY NO	YES NO	986474
<p>FAILURE MODE-ERRATIC OPERATION. RF NO. 3 CHANNEL 10 OPERATED INTERMITTENTLY THROUGHOUT THE TEST.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. RF3 CH10 WOULD BE INTERMITTANT.</p> <p>VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RETEST REQUIRED.</p> <p>CORRECTIVE ACTION-RF3 WAS REPLACED. PROPER OPERATION WAS VERIFIED DURING COMPOSITE RETEST.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	A-99-24-3488-F A-99-24-3488-F	PAR	630301	FACTORY NO	YES NO	986477
<p>FAILURE MODE-OUT OF TOLERANCE. FIVE MOTORS WERE REJECTED FOR HIGH SPEED, LOW SPEED AND FAILURE TO OPERATE. NONE OF THESE FAILURES WERE CONFIRMED.</p> <p>CORRECTIVE ACTION-NONE. THE FAILURES WERE NOT CONFIRMED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TELEMETRY TAPE RECORDER ERS	A-99-24-3288-F A-99-24-3288-F	PAR	134F 630228	11	YES NO	986485-45
<p>FAILURE MODE-FAILED DURING OPERATION. DURING CHECK-OUT, THE TAPE RECORDER HAD ZERO OUTPUT. THE TAPE RECORDER MOTOR WAS NOT PRODUCING A TORQUE SUFFICIENT TO TURN THE TAPE. THE TAPE ADHERED TO THE RECORD AND TRANSMITTING HEADS WHEN THE TAPE IS STOPPED.</p>						

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SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
SUM-SYSTEM							897806
CORRECTIVE ACTION-THE VENDOR IS INSTALLING A DIFFERENT INVERTER TO INCREASE THE DRIVING MOTOR OUTPUT POWER. THEY ARE INCREASING THE PRESSURE BETWEEN THE MAGNETIC TAPE DRIVING ROLLER AND PRESSURE ROLLER PERMITTING THE MOTOR TO CREATE SUFFICIENT FORCE TO FREE THE TAPE FROM AN ADHERED CONDITION.							
INSTRUMENTATION-A/B	N2-9D-24-3291-F	FAR	630226	WTR	NO		899366
TELEMETRY SET AND TRANSDUC TLM CANISTER	ERS	87-18768-803			YES		
FAILURE MODE-ERRATIC OPERATION. WTR TEST RESULTS INDICATED ERRATIC OUTPUT AND THE CENTER FREQUENCY OUTSIDE OF SPECIFICATION LIMITS.							
CORRECTIVE ACTION-FUNCTIONAL TESTING OF THE TELEPAK DID NOT CONFIRM THE FAILURE, THEREFORE IT WAS REQUESTED THAT OTHER CIRCUITS ASSOCIATED WITH TELEPAK, THAT COULD CAUSE THE FAILURE INDICATED, BE CHECKED.							
INSTRUMENTATION-A/B	CT-88-24-158F	FAR	630226	8-4	YES	BOURNS	890392
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	ERS	87-01243-7			NO	42011-0-100-75	
FAILURE MODE-ERRATIC OPERATION. CE LINE PUMP PRESSURE TRANSDUCER WAS TRANSMITTING ERRATIC DATA. FAILURE COULD NOT BE CONFIRMED IN LAB. HOWEVER, POTENTIOMETER WIPER ARM PRESSURE WAS ONLY 2 GRAMS (5 TO 4 GRAMS NORMAL).							
CORRECTIVE ACTION-VENDOR TO REVIEW PROCEDURES FOR SETTING AND MEASURING THE CONTACT FORCE ON POT-TYPE TRANSDUCERS AND NO WHERE TO PROCEDURES. REF. VENDOR CORRECTIVE ACTION REQUEST 3302-63.							
INSTRUMENTATION-A/B	A-99-24-5536-F	FAR	1390	FACTORY	YES	ELGIN NATL. WA	897922
TELEMETRY SET AND TRANSDUC RELAY	ERS	87-11560-3	630227		NO	TCH CO.	
FAILURE MODE-ELECTRICAL OPEN. THE RESISTANCE BETWEEN PINS 1 AND 18 OF THE RELAY IS SPECIFIED AT 10 K OHM. MEASUREMENT INDICATED AN OPEN CIRCUIT. EXAMINATION OF THE RELAY DETECTED SMALL SOLDER SPLASHES ON BOTH SETS OF CONTACTS WHICH INTERFERED WITH NORMAL OPERATION OF THE RELAY							
CORRECTIVE ACTION-THE VENDOR WAS CONTACTED AND REPORTED THAT THE SOLDER SPLASHES OCCURRED DURING THE HANDSEALING PROCESS AND THAT THE METHOD OF SEALING RELAYS WAS CHANGED TO INDUCTION SEALING ELIMINATING THIS TYPE OF FAILURE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTM	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC RADIO/FREQUENCY AMPLIFIER ERS	A-99-24-3418F A-99-24-3418F	FAR 27-01889	630227	FACTORY	YES NO	YES BENDIX PACIFIC	898019
FAILURE MODE-CUT OF SPECIFICATION. LOW POWER OUTPUT AT OPTIMUM TRANSMITTING FREQUENCY. FAILURE WAS NOT CONFIRMED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSVERTER ASSEMBLY-DIODE ERS	A-99-24-3380-F A-99-24-3380-F	FAR 27-12894-S	630227	FACTORY	YES NO		891223
FAILURE MODE-OUT OF TOLERANCE. VOLTAGE DEVELOPED BY ZENER DIODE WAS LOW. GLASS ON DIODE WAS DAMAGED POSSIBLE CAUSE WAS ATTRIBUTED TO POTTING TECHNIQUES.							
CORRECTIVE ACTION-RECOMMENDATIONS WERE MADE BY FAILURE ANALYSIS TO MODIFY POTTING PROCESSES TO PREVENT POSSIBLE DAMAGE TO DIODES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-NZ-99-24-3286 FAR-NZ-99-24-3286	FAR 27-01366-29	200-0 630227	FACTORY	YES NO	YES SERVONIC NO 841A-80-75	890702
FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE TRANSDUCER, DESIGNATED MEASUREMENT P80P, SENSES THRUST CHAMBER PRESSURE. IT WAS REPORTEDLY FAILED WHEN THE TAPE INDICATED NOISE.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	A-99-24-3347-F A-99-24-3347-F	FAR 27-01444-3	43F 630228	FACTORY	YES NO	YES AEC NO 340-4-10	897819
FAILURE MODE-OUT OF SPECIFICATION. DURING BENCH TEST, 8 AMPLIFIERS EXHIBITED NOISE IN EXCESS OF SPECIFICATION LIMITS							
CORRECTIVE ACTION-THE VENDOR WAS NOTIFIED OF THE FAILURE TO COMPLY TO MIL-I-28800. ALL AVAILABLE AEC AMPLIFIERS WERE RETURNED TO THE VENDOR FOR REMEDY.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-TRANSMITTER ERS	PI-8CO-02-134	COMPOSITE-J FACT	134F 830225	ETR	YES NO	898877
FAILURE MODE-OUT OF TOLERANCE. RF3 CAUSED INTERFERENCE ON RF4 AND DATA FROM RF4 PACKAGE WAS EXTREMELY NOISY AND SFCOR C LEVEL WAS VERY LOW.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. INTERFERENCE OBSERVED ON RF3 DATA. RF4 DATA UNUSABLE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-REPLACED RF3 PACKAGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	CT-JA-24-131-P	FAR 99-01110-9	630225	FACTORY	YES COLVIN NO	401-0-15-75 898122
FAILURE MODE-STRUCTURAL. LOW OUTPUT VOLTAGE DUE TO A SCRATCH ON THE RESISTANCE MANDREL WINDING ALLOWING EXCESSIVE WIPER ARM WEAR OF THE WINDINGS AND RESULTING SHORT CIRCUITED TURNS.						
CORRECTIVE ACTION-ALERTING THE VENDOR OF THIS QUALITY DISCREPANCY AND REQUESTING HIS IMPROVED INSPECTION TECHNIQUES						
INSTRUMENTATION-A/C TELEMETRY SET AND TRANSDUC TLM CANISTER/OSCILLATOR ERS	A-99-24-3313-F	FAR 27-12372-543	133F 630225	FACTORY	YES BENDIX-PACIFIC NO	898099
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A SUBCARRIER OSCILLATOR INDICATED 15 PERCENT 1BW WHEN 50 PERCENT 1BW IS EXPECTED. POSSIBLE CAUSE OF FAILURE DUE TO AGING DURING PROLONGED NON-USE.						
CORRECTIVE ACTION-IN VIEW OF COST INVOLVED IT IS NOT ADVISABLE TO PROCESS ANY CHANGE TO THE OSCILLATORS. NO CORRECTIVE ACTION TAKEN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-99-24-3363	FAR 7-01723-11	630225	FACTORY	YES BOURNS NO	48013-0-10-758 898099
FAILURE MODE-CONTAMINATION. OUTPUT WAS OPEN AT TWO PRESSURE POINTS. OPENING OF THE ELECTRICAL OUTPUT IS ATTRIBUTED TO THE WIPER ARM LIFTING OFF THE MANDREL WHEN IT PASSED OVER CONTAMINANTS ON THE MANDREL. LOW WIPER ARM TENSION CONTRIBUTED TO THE FAILURE.						

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SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE DIP	TIME DIP	OTH	VENDOR PART NO
CORRECTIVE ACTION-THE WIPER TENSION IS NOW SET AT 8 PLUS OR MINUS 1/8 GRAM. THE ELEMENT CLEANING PROCESS HAS BEEN C MANAGED TO UTILIZE 800A BLAST AND A DISTILLED WATER RINSE.						
INSTRUMENTATION-A/B A-98-24-3348-F						
TELEMETRY SET AND TRANSDUC	AMPLIFIER-CAPACITOR	PAR 37-01444-3	210D	FACTORY	NO	KINETICS
FAILURE MODE-FAIL DURING OPERATION-AMPLIFIER HAD NO OUTPUT. UPON EXAMINATION THE C-8 CAPACITOR AND CR-14 DIODE HAD FAILED IN BOTH SECTIONS OF THE AMPLIFIER. FAILURE WAS DUE TO OVER VOLTAGE FROM THE TEST SET.						
CORRECTIVE ACTION-TET 3800 L/M 2 TEST SET HAS BEEN REJECTED FOR FURTHER USE UNTIL THE SWITCHING CIRCUIT HAS BEEN RE DESIGNED TO PREVENT RECURRENCE OF THIS MODE OF FAILURE.						
INSTRUMENTATION-A/B 8P-99-24-4173-F						
TELEMETRY SET AND TRANSDUC	OSCILLATOR	PAR 7-01488-827	630221	FACTORY	YES	BENDIX
FAILURE MODE-FAIL DURING OPERATION. THE VOLTAGE-CONTROLLED OSCILLATOR HAD TOO HIGH A FREQUENCY AND A POTENTIOMETER ADJUSTMENT IMPROPER. THE FAILURES WERE NOT CONFIRMED.						
CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.						
INSTRUMENTATION-A/B FAR-A-90-24-3437						
TELEMETRY SET AND TRANSDUC	ACCELEROMETER TRANSDUCER	PAR 7-01413-3	R4E	OSTF-1	YES	BORG-WARDER
FAILURE MODE-ELECTRICAL SHORT. THE TRANSDUCER FAILED WHEN A SHORT CIRCUIT TO GROUND WITHIN THE TRANSDUCER WAS FOUND . A HEATER LEAD WIRE EXTENDED THRU THE SOLDER LUG TO CONTACT THE GROUNDING CASE. FAILURE WAS THE RESULT OF POOR SOLDE RING.						
CORRECTIVE ACTION-THE VENDOR INSTITUTED TOTAL QC PROCEDURES TO ALLEVIATE POOR WORKMANSHIP OR MISSED OPERATIONS.						
INSTRUMENTATION-A/B A-98-14-178-F						
TELEMETRY SET AND TRANSDUC	CABLE-SHIELDED	PAR 27-01826-917	134-F	ETR	YES	60/C
FAILURE MODE-SHORT (ELECT). INSULATION RESISTANCE WAS FOUND TO BE 3800 MEGOHMS AT 600 V. D. C.						

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SYSTEM	TEST REPORT NUMBER	VEHICLE	DATE	DIP DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	DATE	DIP	PART NUMBER	TIME	DIP	OTH	VENDOR PART NO
CORRECTIVE ACTION-NONE-FAILURE WAS NOT CONFIRMED.								
INSTRUMENTATION-A/B	A-99-24-3237-F	630219	FACTORY	YES	CONVAIR	NO	27-12077-13	996113
TELEMETRY SET AND TRANSDUC DEMODULATOR								
ERS								
FAILURE MODE-OUT OF TOLERANCE. CHANNEL B GAIN WAS TOO LOW AFTER POTTING. THE UNIT IS BAKED AFTER POTTING FOR SEVERAL HOURS AT 130 DEG. FUNCTIONAL TESTS SHOWED THE GAIN TO BE 1.03 WHEN THE SPECIFICATION CALLS 1.100 PLUS OR MINUS 0.05. THE DEMODULATOR EXHIBITED POOR TEMPERATURE STABILITY AND REPEATABILITY. THE TEMPERATURE SENSITIVITY INDICATES THAT AT THE BAKING PERIOD MAY CAUSE A SHIFT IN GAIN.								
CORRECTIVE ACTION-RAR A-99-24-3723 WAS ISSUED RECOMMENDING TIGHTER PREPOTTING TOLERANCES ON THE DEMODULATOR.								
INSTRUMENTATION-A/B	NZ-99-24-3302F	630219	FACTORY	YES	SERVONICS	NO	M-172-8	992763
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER								
ERS								
FAILURE MODE-STRUCTURAL. THE OUTPUT WAS 6 PERCENT LOW, AND EXCESSIVE SPIKING WAS OBSERVED. TRANSDUCER FAILURE WAS CAUSED BY THE WIPER ELEMENT. THE ELEMENT WAS SCRATCHED, AND CAUSED EXCESS WEAR ON THE RESISTANCE WINDING. PARTICLES OF THE WINDING LOOSED BETWEEN THE TURNS AND SHORTED IT OUT.								
CORRECTIVE ACTION-NONE.								
INSTRUMENTATION-A/B	CT-99-24-093-F	630219	FACTORY	YES	KINETICS	NO	M-172-4	991009
TELEMETRY SET AND TRANSDUC POWER CHANGE/COVER SWITCH								
ERS								
FAILURE MODE-OPEN (ELECTRICAL). HIGH CONTACT RESISTANCE BETWEEN CONTACTS P1-P2, P3-PRAND P8-P9. THE FAILURE WAS PROBABLY DUE TO EXCESSIVE APPLICATION OF SILICONE CONTACT LUBRICANT.								
CORRECTIVE ACTION-THE VENDOR WAS INFORMED OF THE DISCREPANCY AND ITS CAUSE. THE VENDOR ADVISED 60/C OF THE DISCONTINUANCE OF THE LUBRICANT.								
INSTRUMENTATION-A/B	CT-99-24-120-P	630219	ETR-36A	YES	BOURNS	NO	509115-0-3-728	996113
TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER								
ERS								
FAILURE MODE-CONTAMINATION. ELECTRICAL OPEN CIRCUIT BETWEEN PINS B TO C AND A TO C. ATTRIBUTED TO THE PRESSURE TAP NOT MAKING CONTACT WITH THE RESISTANCE ELEMENT AT PIN C.								

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							991001
	CORRECTIVE ACTION-IT WAS RECOMMENDED THAT THE PRESSURE TAP BE SOLDERED TO THE RESISTIVE ELEMENT, RATHER THAN DEPENDING ON THE SEALING COMPOUND NOW USED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TAPE RECORDER ERS	P1-800-01-134	COMPOSITE-B FACT	1347	18	YES APP. MAG. COMP		992274
			930218		NO		
			87-01687-1				
	FAILURE MODE-FAIL DURING OPERATION. THE TAPE IN THE RFA TIME TRANSDUC TAPE PACKAGE WAS NOT TURNING ON THE TRANSPORT.						
	SYSTEM EFFECT-OPERATION DOES NOT START. DATA NOT RECEIVED SINCE TAPE IN RFA PACKAGE WAS NOT TURNING ON THE TRANSPORT.						
	VEHICLE EFFECT-NONE.						
	CORRECTIVE ACTION-TAPE LAPSTAN WAS ADJUSTED AFTER THE TEST.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC IN-FLIGHT CALIBRATOR ERS	CT-90-24-208	FAR	1180	ETR	YES	SD/C	991970
		7-12822-S	930218		NO		
	FAILURE MODE-OUT OF SPECIFICATION. IN-FLIGHT CALIBRATOR REPORTED TO HAVE FAILED WHEN THE CALIBRATOR SHOWED POSITIVE PULSES ONLY WHEN ALTERNATE POSITIVE AND NEGATIVE PULSES WERE EXPECTED. THE REPORTED FAILURE WAS NOT CONFIRMED. AT NO TIME DURING THE ANALYSIS DID THE IN-FLIGHT CALIBRATOR MALFUNCTION.						
	CORRECTIVE ACTION-FAILURE NOT CONFIRMED. TUX SANCAP 7-418 WAS SENT TO ETR INFORMING THEIR PERSONNEL OF THE RESULTS OF THIS ANALYSIS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	CT-99-24-3299-F	FAR	1280	FACTORY	YES	SENDIN-PACIFIC	997983
		99-13337-013	930218		NO		
	FAILURE MODE-FAIL DURING OPERATION. CHANNELS A AND C HAD NO COMMUTATION DURING FACTORY CHECK OUT. FAILURE WAS DUE TO COMMUTATOR FAILURE.						
	CORRECTIVE ACTION-THE COMMUTATOR MOTORS ARE BEING REMOVED FROM STOCK AND ANOTHER MOTOR WILL BE USED.						

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SYSTEM SUB-SYSTEM	TAB/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	PRI OTM	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DEMODULATOR ERS	A-99-24-3431-F A-99-24-3431-F	FAR 27-12367-001	930818	YES NO	60/C
<p>FAILURE MODE-OUT OF TOLERANCE- THE OUTPUT NOISE LEVEL FROM THE DEMODULATOR WAS MORE THAN THE MAXIMUM SPECIFIED IN E OP 330-231.2. THE SPECIFICATION DOCUMENT 27-01288 ALLOWED A LARGER NOISE LEVEL TOLERANCE THAN THE EOP CALLED OUT.</p> <p>CORRECTIVE ACTION-THE EOP NOISE LEVEL REQUIREMENT WAS FOUND TO BE INCORRECT. THE DESIGN GROUP WAS REQUESTED TO HAVE EOP 330-231.2 CHANGED TO AGREE WITH SPECIFICATION DOCUMENT 27-01288.</p>					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-90-24-3452-F	FAR 27-12762-001	1880 930814	YES NO	BENDIX PACIFIC AND 60/A
<p>FAILURE MODE-CONTAMINATION. THE TELEMETRY PACKAGE FAILED DUE TO LOW OUTPUT POWER, OUT OF FREQUENCY, AND INOPERATIVE CHANNEL C. EXAMINATION REVEALED WATER HAD ENTERED THE PACKAGE. THE PACKAGE WAS CORRODED INTERNALLY.</p> <p>CORRECTIVE ACTION-RAR MZ-90-24-3835 REQUESTED THAT THE TELEMETRY PACKAGE BE MOISTURE SEALED. RAR MZ-90-24-3917 RECOMMENDED CHANGES TO BE INCORPORATED IN THE TRANSMITTER TUNING PROCEDURE.</p>					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TAPE RECORDER ERS	A-99-24-3819F	FAR 27-01837-1	134F 930814	YES NO	APPLIED MAGNET ICS 410001
<p>FAILURE MODE-FAIL DURING OPERATION. ZERO OUTPUT. FAILURE WAS CAUSED BY THE MAGNETIC TAPE ADHERING TO THE RECORDING AND TRANSMITTING HEADS.</p> <p>CORRECTIVE ACTION-ENGINEERING CHANGE NOTICE 175999 WAS ISSUED DOCUMENTING THE INCREASING OF MOTOR POWER BY THE VENDOR TO CREATE SUFFICIENT FORCE ON THE TAPE TO FREE IT FROM ADHERANCE TO THE RECORDER AND TRANSMITTING HEADS. PRESENT STOCK TO BE RETURNED TO THE VENDOR ON AN AS-FAILED BASIS TO INCORPORATE THESE CHANGES.</p>					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CIRCUIT BOARD ERS	A-99-24-3329-F	FAR 27-12478-1	930814	90-FAC NO	60/C
<p>FAILURE MODE-UNIT WAS OUT OF SPECIFICATION. THE OUTPUT VOLTAGE WAS NOT WITHIN SPECIFICATION. FAILURE ANALYSIS DID NOT CONFIRM THE FAILURE. INVESTIGATION REVEALED THAT A FAULTY DIGITAL VOLTMETER CAUSED THE UNIT TO BE REJECTED.</p>					

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CORRECTIVE ACTION-THE FAULTY VOLTMETER WAS REPLACED.							899388
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SWITCH ERS	SP-99-24-3888-F	FAR	830214	FACTORY	YES	UNITED ELECTRO DYNAMICS 14384-6	891970
	FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. THE SIGNAL CONVERTER ASSEMBLY FAILED WHEN THE COMMUTATOR SWITCH MALFUNCTIONED. THE SWITCH ACTUATING PLUNGER TURNED 90 DEGREES CAUSING THE FLAPPER TO OPERATE Laterally TO NORMAL CONTACT OPERATION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-SP-99-24-1283	FAR	1260	FACTORY	YES	SERVONIC MO N-172-2	890701
	TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	87-01386-28	830214	FAILURE MODE-LEAK-EXTERNAL. DURING FACTORY CALIBRATION, THE TRANSDUCERS WERE FOUND TO HAVE TOO LARGE A STATIC ERROR. A LEAK AT THE BOURDON TUBE BRAZES CAUSED THE CASE TO BECOME PRESSURIZED, COUNTERACTING PRESSURE WITHIN THE TUBE, CAUSING THE TRANSDUCER TO BE OUT OF CALIBRATION.			
CORRECTIVE ACTION-THE VENDOR INITIATED A LEAK- DETECTION PROCEDURE TO PRECLUDE THE CONDITION.							893118
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CRYSTAL RECTIFIER ASSEMBLY RESISTO 37-13337-3 ERS	CT-99-24-106-F	FAR	830218	FACTORY	YES		
	TELEMETRY SET AND TRANSDUC CRYSTAL RECTIFIER ASSEMBLY RESISTO 37-13337-3				NO		
FAILURE MODE-OUT OF TOLERANCE. THE DC OUTPUT WAS BELOW SPECIFICATION DUE TO IMPROPER RESISTOR R-16 VALUE. RESISTOR MARKING INDICATED 21.5K OHMS PLUS OR MINUS 1 PERCENT ACTUAL VALUE WAS 23.814K OHMS.							
CORRECTIVE ACTION-FAR CT-99-24-3745 REQUESTING THE RESISTOR VENDOR TO IMPROVE HIS QUALITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SP-99-24-3478-F	FAR	1970	FACTORY	YES	BOURNS MO 75811-0-8-758	
	TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	7-01720-1	830218	FAILURE MODE-CONTAMINATION. OUTPUT WAS LOW. WIPER ARM WAS OPEN CIRCUITED FROM RESISTANCE ELEMENT CAUSING ZERO OUTPUT. CONTAMINATION OBSERVED DURING ANALYSIS IS PROBABLE CAUSE OF FAILURE.			

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							002700
CORRECTIVE ACTION-VENDOR INITIATED A PROCEDURE FOR THE ELIMINATION AND CONTROL OF PARTICLE CONTAMINATION EFFECTIVE 20 MAR 63.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR/RESISTOR ERS	SP-89-24-3482-F OSCILLATOR/RESISTOR	FAR 7-01488-887	630212	FACTORY	YES	BENDIX PACIFIC NO 1030702-13-A	002470
FAILURE MODE-OUT OF TOLERANCE. FAILURE ANALYSIS DETERMINED THE CAUSE OF FAILURE. OSCILLATOR COULD NOT BE ADJUSTED TO WITHIN SPECIFICATIONS, TO THE IMPROPER VALVE OF BEARING RESISTOR R-9. THE RESISTOR WAS AS SPECIFIED, HOWEVER, THE WRONG OHMIC VALVE HAD BEEN SELECTED BY THE VENDOR.							
CORRECTIVE ACTION-RELIABILITY ACTION REPORT A-98-24-3688 WAS WRITTEN REQUESTING ALL SUBCARRIER OSCILLATIONS MANUFACTURED DURING AND BEFORE 1961 BE PURGED FROM STOCK. TEST PROCEDURE TDT-01488 BECAME EFFECTIVE IN OCTOBER 1, 1963 TO SUBCARRIER OSCILLATORS TO REDUCE DRIFT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER TRANSDUCERS	FAR-HG-99-24-3276 ACCELEROMETER TRANSDUCERS	FAR 7-01413-3	1440	FACTORY	YES	BORG WARNER NO 97478	000700
FAILURE MODE-OUT OF TOLERANCE. THE ACCELEROMETER FAILED DURING FACTORY C/O WHEN THE OUTPUT WAS TOO HIGH. FAILURE ANALYSIS WAS CANCELLED BECAUSE THE PART WAS NOT RECEIVED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER-AMPLIFIER ERS	SP-89-24-3324-F SIGNAL CONDITIONER-AMPLIFIER	FAR 87-12479-3	1970	FACTORY	YES	KINETICS NO M798	007800
FAILURE MODE-FAIL DURING OPERATION. THE OUTPUT WOULD NOT ZERO PROPERLY. FAILURE ANALYSIS REVEALED THE SIGNAL CONDITIONER (WHICH THE AMPLIFIER IS INSTALLED INTO) WAS NOT BEING PROPERLY GROUNDING TO THE TEST SET.							
CORRECTIVE ACTION-TCA NO.6 DATED MARCH 1, 1963 TO SUP NO.330.229.4 PROVIDES FOR AN IMPROVED METHOD OF GROUNDING THE SIGNAL CONDITIONER TO THE TEST SET.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SIZE TIME OF DAY	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	N2-9D-24-3488-F TELEMETRY SET AND TRANSDUC TLM CANISTER	FAR 27-12782-801	182D 930211	WTR	YES NO	31MO12-PACIFIC AND 6D/A	090826
FAILURE MODE-ERRATIC OPERATION. FAILURE DUE TO CORROSION RESULTING FROM WATER ENTERING THE CANISTER.							
CORRECTIVE ACTION-RAR N2-9D-24-3933 REQUESTED THAT THE TELEMETRY PACKAGE BE MOISTURE SEALED. RAR-N2-9D-24-3917 RECO MENDED CHANGES TO BE INCORPORATED IN THE TRANSMITTER TUNING PROCEDURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	CT-9B-24-112-P TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01287-3	930211	ETR	YES NO	BOURNS	093121
FAILURE MODE-ELECTRICAL OPEN CIRCUIT THROUGH STRUCTURAL IMPERFECTIONS. THE PRESSURE TAP WHICH ACTUATES THE VARIABLE RESISTANCE WAS NOT MAKING CONTACT WITH THE RESISTANCE.							
CORRECTIVE ACTION-STAKING COMPOUND IS USED TO JOIN THE PRESSURE TAP TO THE RESISTANCE ELEMENT WHERE AS SOLDERING IS RECOMMENDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	CT-9B-24-111-P TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01287-3	930211	ETR	YES NO	BOURNS	093120
FAILURE MODE-ELECTRICAL OPEN CIRCUIT THROUGH STRUCTURAL IMPERFECTIONS. THE PRESSURE TAP WHICH ACTUATES THE VARIABLE RESISTANCE WAS NOT MAKING CONTACT WITH THE RESISTANCE.							
CORRECTIVE ACTION-STAKING COMPOUND IS USED TO JOIN THE PRESSURE TAP TO THE RESISTANCE ELEMENT WHEREAS SOLDERING IS RECOMMENDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	CT-9B-24-117-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	FAR 7-01283-13	118D 930211	ETR	YES NO	CEC	092373
FAILURE MODE-OUT OF TOLERANCE. THE UNIT INDICATED IS PS16 WHEN IS PS16 WAS APPLIED. FAILURE ANALYSIS FOUND SEVERAL GOLD SOLDER JOINTS IN THE UNIT WHICH CAUSED THE DISCREPANCY.							
CORRECTIVE ACTION-RECOMMENDATION THAT ACTION TO ELIMINATE POOR SOLDER WORKMANSHIP BE ACCOMPLISHED BY VENDOR QUALITY CONTROL.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	JIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	CT-98-24-116-P	FAR 7-01783-13	1160 830210	ETR	YES NO	BURNS 45013-0-100-75 E-
FAILURE MODE-ERRATIC OPERATION. TRANSDUCER WAS REPORTED TO BE FLUCTUATING OUT OF TOLERANCE.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	CT-98-24-113-P	FAR 27-01897-3	1160 830208	ETR	YES NO	BURNS
FAILURE MODE-CONTAMINATION. ERRATIC OPERATION PROBABLY CAUSED BY CONTAMINANTS LOOSING ON THE ELEMENT.						
CORRECTIVE ACTION-CONTAMINATION WAS SUSPECTED AS ENTERING THE UNIT DURING CLEANING OR FROM UNCLEAN PRESSURE LINES TO THE UNIT. A REQUEST WAS MADE ASKING THAT GREATER CARE BE TAKEN TO PREVENT FOREIGN MATERIAL FROM ENTERING THE ELEMENT AREA.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER AMPLIFIER-TRANSISTOR ERS	CT-99-24-092-P	FAR 27-01877-23	830208	FACTORY	YES NO	CULTON
FAILURE MODE-OUT OF TOLERANCE. THE AMPLIFIER GAIN DECREASED 42 PERCENT AFTER TWO MINUTES OF WARMUP. THE MAXIMUM ALLOWED GAIN DECREASE IS 3 PCT. FAILURE IS ATTRIBUTED TO THE EXCESSIVE COLLECTOR-EMITTER LEAKAGE OF A 2N1173 TRANSISTOR.						
CORRECTIVE ACTION-WAR CT-99-24-3705 REQUESTING VENDOR ACTION TO IMPROVE HIS RECEIVING INSPECTION TO REJECT MARGINAL TRANSISTORS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	A-99-24-3328F	FAR 27-01609-1	87F 830207	FACTORY	NO NO	BENDIX 1063520
FAILURE MODE-OUT OF TOLERANCE. UNITS OUTPUT WAS .5 VOLTS WHEN A MINIMUM OF 2.50 VOLTS WAS REQUIRED. FAILURE ANALYSIS REVEALED THE OUTPUT TRANSISTOR AND ITS EMITTER RESISTOR WERE DAMAGED BY EXCESSIVE HEAT CAUSED BY IMPROPER CONNECTIONS TO THE OUTPUT OF THE UNIT.						
CORRECTIVE ACTION-SUPERVISION OF COSMIZANT DEPARTMENTS CAUTIONED THEIR PERSONNEL TO EXERCISE CAUTION IN TESTING. NA						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI VENDOR NAME	OTH VENDOR PART NO	
HOLING, AND CHECKING THESE UNITS.							097990
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERR	A-99-24-3269-F	FAR 7-01488-061	930807	FACTORY	YES BENOIX NO	1041962-42	099306
FAILURE MODE--DRIFT. THE OSCILLATOR OUTPUT FREQUENCY DRIFTED OUT OF SPECIFICATION WHEN THE INTERNAL COMPONENTS CHANGED SUFFICIENTLY SINCE CHECKOUT.							
CORRECTIVE ACTION--RECOMMENDATION TO REVIEW IN-HOUSE PROCEDURES FOR COMPONENT ACCOUNTABILITY SO THE OSCILLATORS COULD BE PERIODICALLY RECYCLED TO THE VENDOR'S PLANT FOR RECALIBRATION. THE DESIGN DEPARTMENT HAS REPLACED THIS TELEPAK CONTAINING THIS OSCILLATOR WITH A NEW LIGHTWEIGHT TELEPAK.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	CT-08-24-144-F	FAR 7-01732-3	1160	ETR	YES BOURNS NO		099376
FAILURE MODE--ERRATIC OPERATION. WITH VOLTAGE SPIKES MEASURING 8 PERCENT OF FULL SCALE AT 600 TO 900 PSIA. THE PROBABLE CAUSE WAS THE COMBINED VARIABLE WIPER ARM TENSION, (4 TO 6 GRAMS) AND SILACONE OIL FILMING AIDING THE INTERMITTENT WIPER CONTACT.							
CORRECTIVE ACTION--NONE, SINCE THE TRUE FAILURE CAUSE IS UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER, WIRING ERR	A-99-24-3439-F	FAR 27-01192-1	630206	CONVAIR	YES GULTON NO	PT-9150	091033
FAILURE MODE--ELECTRICAL SHORT. AMPLIFIER FAILED WHEN A 60 CYCLE OUTPUT WAS OBSERVED WITH NO INPUT. FAILURE WAS CONFIRMED AND ATTRIBUTED TO IMPROPER SOLDERING BY THE VENDOR, CAUSING THE OUTPUT OF TRANSISTOR 9-7 TO BE SHORTED TO PLUS 19 VOLTS DC, RESULTING IN IMPROPER AMPLIFIER OUTPUT.							
CORRECTIVE ACTION--REQUESTED VENDOR TAKE ACTION TO IMPROVE INSPECTION PROCEDURES DURING AMPLIFIER ASSEMBLY TO PREVENT THIS TYPE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONVERTER, TRANSDUCER ERR	A-99-24-3320-F	FAR 35-13934-3	1520	50-FACTO	YES 50/C NO		
FAILURE MODE--ELECTRICAL SHORT. THE INPUT VOLTAGE OF THE LIGHTWEIGHT MERCURY TELEMETRY PACKAGE DRC-PED 175 MILLIVOLTS WHEN THE CONVERTER ASSEMBLY WAS INSTALLED. THE EOP STATES THE VOLTAGE SHOULD NOT DROP MORE THAN 18 MILLIVOLTS. FAILURE							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE D17	SITE TIME D17	PRI OTH	VENDOR NAME VENDOR PART NO	
	LURE ANALYSIS REVEALED A SHORTED 8-1 TRANSISTOR.						897891
	CORRECTIVE ACTION-THE TRANSISTOR FAILURE WAS PROBABLY CAUSED BY EXCESSIVE INPUT VOLTAGE BEING APPLIED DURING TESTING OF THE UNIT. REVISION A TO RDP 330-410 DATED MARCH 7, 1968 INCORPORATES CHANGES IN TESTING PROCEDURES TO PRECLUDE RECURRENCE OF THIS PROBLEM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	SP-89-24-3598-F 80-07800-098	FAR 80-07800-098	1180 830201	FACTORY	YES	SCIONICS MO MCB 101	898304
	FAILURE MODE-ERRATIC OPERATION. THE UNIT FAILED DURING SYSTEM CHECKOUT. FUNCTIONAL T1:STING SHOWED THAT AN AMPLIFIER WAS UNSTABLE AND ERRATIC AT THE 8.8 AND 10 MV INPUT SETTINGS. THE EXACT DEFECTIVE COMPONENT WAS NOT FOUND AS THE AMPLIFIER WAS RETURNED TO THE VENDOR.						
	CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN AS CAUSE OF FAILURE WAS NOT FOUND. FOLLOW UP ACTION WAS TAKEN ON ANOTHER AMPLIFIER WITH THE SAME MODE OF FAILURE. SEE FAR SP-89-24-3383P.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER-CAPACITOR ERS	A-89-24-3321-F 27-12882-8	FAR 27-12882-8	1930 830201	80-FAC	YES	NO	897897
	FAILURE MODE-ELECTRICAL OPEN. THE OUTPUT WAS ZERO REGARDLESS OF THE POSITION OF POTENTIOMETER 3R108 ON THE APPLIED FREQUENCY. CAPACITOR C-1 WAS FOUND TO BE OPEN CAUSED BY A COLD SOLDER JOINT.						
	CORRECTIVE ACTION-POTENTIOMETERS 1R108 AND 2R108 WERE CHANGED TO AGREE WITH DRAWING 27-12882 BY TVA NO.3 DATED APRIL 2, 1968. CAPACITOR MANUFACTURER REDUCED LEAD SIZE TO PRECLUDE UNQUE STRESSES AT THE FOIL JOINT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDIT. ONER ERS	SP-89-24-3505-F 27-12890-819	FAR 27-12890-819	1390 830201	80	NO	NO	897489
	FAILURE MODE-OUT OF TOLERANCE. REPORTED MEASUREMENT 2813V INDICATED 39 PERCENT 18V WHEN 46 PERCENT WAS EXPECTED. FAILURE NOT CONFIRMED.						
	CORRECTIVE ACTION-UNKNOWN.						

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SUPPORTS REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER TELEMETRY ERS	BP-18-24-3273-F PRESSURE TRANSDUCER TELEMETRY	FAR 7-01780-9	1960 030801	FACTORY	YES NO	SERVOINCS M-19
FAILURE MODE-CONTAMINATION. UNIT OUTPUT SPIKED AD TO 19 PCT WHILE PRESSURIZED AT 3000 PSI HYDRAULIC PRESSURE. FAILURE NOT CONFIRMED HOWEVER ANALYSIS REVEALED RUBBER LINE PARTICLES IN THE WINDING AND BASE OF THE RESISTIVE ELEMENT.						
CORRECTIVE ACTION-FACTORY PEOPLE INFORMED TO TAKE PRECAUTION THAT TEST CONDITION RESPONSES ARE NOT THE REASON FOR R EJECTING TRANSDUCERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER. ERS	A-99-24-3283F SIGNAL CONDITIONER.	FAR 87-18374-603	1960 030800	FACTORY	YES NO	60/C
FAILURE MODE-OUT OF TOLERANCE. TWO ASSEMBLIES REPORTEDLY FAILED WHEN INTERMITTENT OR NO OUTPUT WAS OBSERVED DURING CHECKOUT OF THE SIGNAL CONDITIONER. THE ASSEMBLIES ARE HEAT SENSITIVE. DIODE CR-11 OPERATES OUT OF SPECIFICATION AFTER THE ASSEMBLY HAS BEEN OPERATED FOR AN EXTENDED PERIOD.						
CORRECTIVE ACTION-EOP WAS CHANGED TO LIMIT TESTING TO 3 MINUTES MAXIMUM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	AP-99-24-3338-F OSCILLATOR	FAR 87-01358-9	1960 030131	FACTORY	YES NO	BENDIX-PACIFIC 1069093-A-6
FAILURE MODE-OUT OF TOLERANCE. THE OSCILLATOR WOULD NOT ADJUST TO THE LOW FREQUENCY LIMIT DURING MANUFACTURING TESTING. EXAMINATION OF THE UNIT REVEALED TWO CAPACITORS NEARLY TOUCHING. IT WAS FOUND THAT WITH A RESISTANCE OF 47 K OHM BETWEEN THE CAPACITORS THE FAILURE COULD BE DUPLICATED.						
CORRECTIVE ACTION-THE CAPACITORS WERE CHANGED TO A CLASS FUSION-SEALED TYPE IN DECEMBER 1961. THE OSCILLATOR IN THE 3 REPORT WAS BUILT BEFORE THAT DATE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER ERS	A-99-24-3298-F SIGNAL CONDITIONER	FAR 87-18368-603	1960 030131	ETR	NO NO	
FAILURE MODE-ERRATIC OPERATION. THE NEGATIVE GATE OF CHANNEL 13 WAS NOISY. A FUNCTIONAL TEST INDICATED THE SIGNAL CONDITIONER WAS OPERATING PROPERLY AND THE NOISE WAS BEING GENERATED FROM AGE EQUIPMENT.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							997923
	CORRECTIVE ACTION-NONE THE NOISE WAS INTRODUCED BY AN EXTERNAL SOURCE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER CRS	CT-98-24-092-F CT-98-24-092-F	'AR 27-01243-9	1160 930130	364	YES BURNS NO 42011-D-150-75		990594
	FAILURE MODE-LEAK-EXTERNAL. TRANSDUCER WAS READING 0.7 VOLTS LOWER THAN SPEC REQUIREMENTS. ANALYSIS INDICATED THAT FAILURE RESULTED FROM A SMALL LEAK AT THE SOLDER SEAL OF THE EVACUATION TUBE WHICH ALLOWED PARTIAL LOSS OF REFERENCE PRESSURE.						
	CORRECTIVE ACTION-VENDOR PROCEDURE FOR SEALING CHANGED FROM SOLDER SEALING TO RESISTANCE WELDING OF A RIVET INTO THE EVACUATION TUBE. REF. RELIABILITY ACTION REPORT SP-A9-24-3836.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER CRS	FAR-SP-20-24-3234 FAR-SP-20-24-3234	'AR 27-01243-7	930129	11	YES COLVIN NO 401-A-10-75		990698
	FAILURE MODE-INTERNAL LEAK. TRANSDUCER READ 5 PSIG LOW THROUGHOUT ITS RANGE BECAUSE OF A SMALL LEAK AT THE SOLDER SEAL OF THE BELLOW EVACUATION TUBE.						
	CORRECTIVE ACTION-FAILURE WAS CONFIRMED. VENDOR WAS REQUESTED TO 1) IMPROVE SOLDER SEAL PROCESS, 2) IMPROVE METHOD FOR CHECKING LEAKS AND 3) STONE TRANSDUCERS A MINIMUM OF ONE WEEK BEFORE CHECKING FOR LEAKS. THE VENDOR REPLIED COMPLIANCE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER CRS	MZ-A9-24-3263-F MZ-A9-24-3263-F	'AR 27-01388-39	1980 930128	FACTORY	YES SERVONIC NO H-172-9		991560
	FAILURE MODE-ERRATIC OPERATION. EXCESSIVE SIKING. THE TRANSDUCER FAILED DURING NORMAL MISSILE CHECKOUT VIBRATION WHICH CAN EXCEED THE MAX DESIGN LEVEL. THIS LAKE UNIT WOULD FAIL TO MEET MINIMUM 6 LEVELS DUE TO DESIGN DEFICIENCY INVOLVING LOW WIPER TENSION, EXCESS WIPER CONTACT MASS, AND UNDAMPED SOUNDON TUBES.						
	CORRECTIVE ACTION-VENDOR REDESIGNED THE TRANSDUCERS TO WITHSTAND THE HIGHEST 6 LEVELS SPECIFIED. 100 PERCENT SOURCE INSPECTION FOR VIBRATION SENSITIVITY BEING PERFORMED AT VENDOR PLANT.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMPARATOR-MOTOR ERS	A-98-24-3188-F FAILED COMPONENT NAME	FAR 87-18373-888	133F 630187	FACTORY	YES	BENDIX-PACIFIC
FAILURE MODE-CONTAMINATION. CHANNEL 10 COMMUTATOR WOULD NOT RUN. THE COMMUTATOR SEGMENTS OF THE MOTOR WERE COVERED WITH EXCESSIVE CARBON. THE MOTOR BRUSHES WERE EXAMINED AND FOUND TO HAVE EXCESSIVE BRUSH WEAR.						
CORRECTIVE ACTION-COMMUTATOR MOTOR PROBLEM WAS DISCUSSED WITH BENDIX-PACIFIC. THE MOTOR WITH THE REPORT WAS GIVEN TO BENDIX. BENDIX-PACIFIC CONTACTED BENDIX-MONTROSE AND THEY WOULD BEGIN LIFE TESTS TO STUDY A SOLUTION TO MOTOR BRUSH WEAR PROBLEMS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-VALVE ERS	89-20-212F CANISTER-VALVE	FAR 95-40359-1	630185	FACTORY	YES	ZERO MFG. CO. NO Z8P8-822,P.8.5 V2.5
FAILURE MODE-FAIL DURING OPERATION. CANISTER PRESSURE CONTROL VALVE IS INOPERATIVE. MODIFIED FROM STANDARD PART 88-2090 J-180						
CORRECTIVE ACTION-THIS PART WILL NOT BE USED IN ANY NEW DESIGNS. (APRIL 9, 1983). THE 6DC PROPELLANT LOADING SYSTEM GROUP WILL USE THIS PART FOR THE REMAINDER OF THE NIXE-ZEUS PROGRAM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	147-89-24-3273-F PRESSURE TRANSDUCER	FAR 87-01386-38	133D 630184	FACTORY	YES	SERVONICS NO NONE
FAILURE MODE-ERRATIC OPERATION. UNIT DISPLAYED 5 PCT OSCILLATIONS AND AN UNEXPECTED 7 PCT LEVEL SHIFT. FAILURE PARTIALLY CONFIRMED. CAUSE -SPIKING OUTPUT RESULTED FROM LOW WIPER TENSION. EXCESS WIPER CONTACT MASS AND UNDAMPED BOUND ON TUBE. THE 7 PCT LEVEL SHIFT WAS NOT CONFIRMED.						
CORRECTIVE ACTION-VENDOR REDESIGNED TRANSDUCERS DASH NO. 87 THRU 41. SPECIFICATIONS OF NEW DASH NO. TRANSDUCERS ARE SUCH THAT THIS PROBLEM SHOULD NOT RECUR.						
INSTRUMENTATION-1/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER-TRANSISTOR ERS	A-98-24-3284-F SIGNAL CONDITIONER-TRANSISTOR	FAR 87-18374-803	630185	FACTORY	YES	CONVAIR NO
FAILURE MODE-ERRATIC OPERATION. DURING FACTORY CHECKOUT, THE EVENTS SIGNALASSEMBLY P/N 87-18380-818 OUTPUT WAS ERRATIC DUE TO A COLD-SOLDER JOINT AT THE JUNCTION OF THE EMITTER POST AND THE CONNECTOR TO THE CRYSTAL WITHIN THE 81 TR TRANSISTOR						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE. TRANSDUCER IS A MULTI-SOURCE COMPONENT AND GOC WAS UNABLE TO DETERMINE THE MANUFACTURE OF THE FAULTY TRANSDUCER.						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUCER	H6-A8-24-2172F TRANSDUCER, INSTRUMENTATION	FAR 7-01720-8	1300 630183	8AM O	DIEG NO	YES NO
FAILURE MODE-ERRATIC OPERATION. AT 3000 PSIA PRESSURE 80 TO 40 PERCENT SPIKING OCCURRED. FAILURE WAS NOT CONFIRMED. THE REPORTED FAILURE WAS EITHER EXTERNAL TO THE TRANSDUCER OR WAS INTERNAL UNDER A SPECIAL CONDITION SUCH AS SUBJECTING THE TRANSDUCER TO PROLONGED VIBRATION AT A FIXED FREQUENCY AND AT A CRITICAL G-LEVEL.						
CORRECTIVE ACTION-REQUESTED ADDITIONAL MISSILE SYSTEM STUDIES AND TESTS TO DETERMINE THE MAGNITUDE AND FREQUENCY OF VIBRATIONS OCCURRING DURING MISSILE CHECKOUT. THE RESULTS OF THESE TESTS WILL PERMIT MEANINGFUL DESIGN CORRECTIVE ACTION TO ELIMINATE THE SOURCE OF THIS RECURRENT FAILURE.						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUCER	CT-08-24-143-P PRESSURE TRANSDUCER	FAR 7-01723-11	1180 630182	ETR O	YES NO	90URNS 42013-0-50-752
FAILURE MODE-OUT OF TOLERANCE. 9.3 PSIA WAS OBSERVED WHERE 6 PSIA WAS EXPECTED. LOW TENSION POTENTIOMETER WIPER ARM CAUSED ERRONEOUS OUTPUT.						
CORRECTIVE ACTION-RECOMMENDED THAT THE VENDOR BE INFORMED OF THE DISCREPANCY AND DIRECTED TO REVIEW HIS ASSEMBLY AND INSPECTION PROCEDURES. IT WAS SUGGESTED THAT THE VENDOR INCREASE THE WIPER ARM TENSION AT LEAST 5 GRAMS.						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUCER	A-92-24-3317-F TLM CANISTER, DIODE	FAR 87-12874-903	2010 630182	FACTORY O	YES NO	60/C NO
FAILURE MODE-FAIL DURING OPERATION. THREE FAILURES WERE CAUSED BY DEFECTIVE COMPONENTS AND BROKEN PARTS. UNITS COULD NOT BE ADJUSTED TO ZERO.						
CORRECTIVE ACTION-INSPECTION PERSONNEL WERE ADVISED BY SUPERVISION OF THE IMPORTANCE OF CLOSE ADHERENCE TO EXISTING PROCEDURE.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-A-48-24-2270 PRESSURE TRANSDUCER	FAR 87-01888-29	93E 930122	FACTORY	YES YES	990899
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE TRANSDUCER REPORTEDLY FAILED WHEN NO OUTPUT WAS RECEIVED FROM PIN A. THE HARNESS WAS SATISFACTORY AND PRESSURE VARIATIONS (FULL RANGE) CAUSED NO OUTPUT. THIS TRANSDUCER MEASURES SUST. ENGINE NYO. PUMP INLET PRESSURE (MEASUREMENT H189P).						
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. RELIABILITY FAILURE ANALYSIS GROUP REQUESTED INVESTIGATION OF POSSIBLE EXTERNAL CAUSE OF REPORTED FAILURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	A-99-24-3272-F SUBCARRIER OSCILLATOR	FAR 87-01888-9	930121	FACTORY	YES NO	899307
FAILURE MODE-FAIL DURING OPERATION. FREQUENCY SHIFTS 5 TO 10 PERCENT OF INFORMATION BAND WITH WERE OBSERVED AND EXCESSIVE NOISE OCCURRED WITH 2.5 VOLT D.C. INPUT. POOR GROUND CONNECTION IN FILTER NETWORK CAUSED PROBLEM.						
CORRECTIVE ACTION-VENDOR SUPPLIED IMPROVED INSTRUCTION DOCUMENTS AND TRAINING AIDS FOR IMPROVED WORKMANSHIP.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	CT-98-24-129-P PRESSURE TRANSDUCER	FAR 7-01723-11	1160 930121	ETR	YES NO	992936
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER OUTPUT INDICATED 2.8 TOO HIGH, WITH 9 PSIG APPLIED. THE FAILURE MAY HAVE BEEN CAUSED BY AN INCORRECTLY ADJUSTED BELLOW STOP, CAUSING THE WIPER ASSEMBLY COLLAR TO SLIP UPWARDS DURING VACUUM TESTING OF THE TRANSDUCER. THIS WOULD STRETCH THE BELLOW AS IN OVERPRESSURIZATION. THE VENDOR DID NOT PROVE THAT THE TRANSDUCER WAS OVERPRESSURIZED BY 60C.						
CORRECTIVE ACTION-BAR 3P-98-24-3749 REQUESTED VENDOR DESIGN AND QUALITY CONTROL ACTION TO PREVENT COLLAR SLIPPAGE DUE TO LOOSE SET SCREW OR INCORRECT ADJUSTMENT OF THE BELLOW STOP.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	NZ-A9-24-3261-F PRESSURE TRANSDUCER	FAR 87-01888-39	193D 930121	FACTORY	YES NO	
FAILURE MODE-ERRATIC OPERATION. 18 PERCENT SPIKING OBSERVED DURING COMPOSITE RUN. THIS TRANSDUCER HAD A KNOWN DESIGN DEFICIENCY INVOLVING LOW WIPER TENSION, EXCESSIVE WIPER TIP MASS, AND AN UNDAMPED BOUNDRUM TUBE.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-A133ORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-IN STOCK TRANSDUCERS VIBRATION TESTED. VENDOR REDESIGNED THE TRANSDUCER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	A99-24-3487-F	FAR	630116	FACTORY	YES	BEMOIX MONITORS NO E 1096489
FAILURE MODE-OUT OF TOLERANCE. TWELVE (12) WERE REJECTED FOR OVERSPEED, UNDERSPEED AND FAILURE TO START. FAILURE ANALYSIS CONCLUDED THAT TOO MANY PROBLEMS EXISTED ON THIS PACKAGE TO DO OTHER THAN ORDER A NEW P/N PACKAGE.						
CORRECTIVE ACTION-ALL FUTURE PURCHASES WILL SPECIFY PACKAGES OTHER THAN THIS P/N 27-01237.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	HG-99-24-3333-F	FAR 27-01352-845	630117	SO-FAC	YES	BEMOIX NO 1069093-E-AA
FAILURE MODE-UNIT FAILED DURING OPERATION BY LOADING DOWN THE COMPOSITE LINE. FAILURE ANALYSIS DID NOT CONFIRM THE FAILURE. DIRT WAS PRESENT IN THE CONNECTOR AND COULD HAVE CAUSED THE FAILURE.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	HG-99-24-3301-F	FAR 27-12290-619	630117	FACTORY	YES	TEXAS INSTRUMENTS NO NTS 423202-25
FAILURE MODE-OUT OF SPECIFICATION ON TOLERANCE. THE OSCILLATOR OUTPUT FREQUENCY WENT OUT OF TOLERANCE DURING FACTORY TESTING BUT COULD NOT BE CONFIRMED BY FUNCTIONAL TESTING.						
CORRECTIVE ACTION-UNKNOWN. REPORTED FAILURE COULD NOT BE CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MIRING ERS	SP-99-24-3192-F	FAR 27-18368-869	139-D 630116	FAC	YES	FIFTH DIM NO
FAILURE MODE-OUT OF SPECIFICATION. THE NOISE LEVEL WAS ABOVE SPECIFICATION LIMITS. DUE TO BREAKAGE OF STRANDED WIRE (SEPARATED AT SOLDER JOINT) FOR J-3 PIN 28 AND A CRACK IN THE COPPER TERMINAL AND SOLDER AT J-3, PIN 29 IN THE COMMUTATOR.						

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SYSTEM SUB-SYSTEM	YES/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-REQUESTED VENDOR (FIFTH DIMENSION) TO REVIEW THEIR SOLDERING TRAINING PROGRAM AND IMPROVE THEIR INSPECTION PROCEDURE. (SEE 6D/C 87-89-24-3890).							897482
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS							892781
	A-99-24-3448-F	FAR	1980	PMR	YES	ROSEMOUNT NO 13446	
FAILURE MODE-STRUCTURAL. ELECTRICAL CONNECTOR FOUND BROKEN FROM TRANSDUCER HEAD. IT WAS CONCLUDED THAT EITHER THE MATING CONNECTOR WAS OVER TIGHTENED OR DAMAGED DURING CHECKOUT.							
CORRECTIVE ACTION-VENDOR IS CHANGING TO A WELDED CONNECTOR ON ALL FUTURE ORDERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS							893915
	SP-A9-24-3260-F	FAR	1980	FACTORY	YES	BOURNS NO 71724-0-35-752	
FAILURE MODE-OUT OF TOLERANCE. STATIC ERROR BAND WAS -4.08 PERCENT WHEN PLUS OR MINUS 1.0 PERCENT IS ALLOWED. CAUSE OF FAILURE WAS 17 SHORTED TURNS OF ELEMENT WIRE CAUSED BY A DEEP GROOVE IN THE ELEMENT. THIS COULD ONLY OCCURRED DURING VENDOR ASSEMBLY OF THE PART.							
CORRECTIVE ACTION-VENDOR INITIATED A SERIES OF IMPROVED WORKMANSHIP STANDARDS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-WIRING ERS							898036
	A-99-24-3182-F	FAR	135F	FACTORY	YES		
	87-12571-899	830114			NO		
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. A 28 VDC MONITOR POINT FOR CHECKOUT WAS INOPERATIVE. A JUMPER WIRE WITHIN THE TRANSMITTER WAS MISSING THE JUMPER WAS ADDED BY MODIFICATION BUT WAS NOT INSTALLED BY THE FACTORY.							
CORRECTIVE ACTION-A REQUIREMENT TO RING OUT ALL PACKAGES AFTER MODIFICATION WAS IMPROVED ON INSPECTION TO VERIFY THAT ADDED JUMPERS AND WIRES HAVE BEEN INCORPORATED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER-TRANSDUCER ERS							
	A-99-24-3380-F	FAR	2000	FACTORY	YES		
	87-12584-5	830114			NO		
FAILURE MODE-ELECTRICAL OPEN. UNIT WAS REJECTED AS HAVING NO OUTPUT. FAILURE ANALYSIS REVEALED TRANSISTOR 8-4 HAD AN OPEN BASE LEAD. TRANSISTORS 8-1 AND 8-2 HAD GAINS ABOVE THEIR SPECIFIED LIMITS. M/A 87-12880-916 SIGNAL CONDITIONER							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI VENDOR NAME OTH VENDOR PART NO
CORRECTIVE ACTION-INSPECTION PERSONNEL WERE NOTIFIED OF THE FAILURE. AN INVESTIGATION DID NOT REVEAL ANY REASON FOR POTTING TEMPERATURES TO CAUSE PHYSICAL DAMAGE TO COMPONENTS.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BUS ASSEMBLY ERS	A-99-24-3182-F 27-12468-1	FAR 27-12468-1	930114	FACTORY	YES 60/A NO
FAILURE MODE-OPEN-ELECTRICAL. THE BUS ASSEMBLY FAILED WHEN PIN Y WAS FOUND OPEN. A 100 OHM RESISTOR HAD NEVER BEEN INSTALLED.					
CORRECTIVE ACTION-INSPECTION AND SHOP WERE MADE CORRECTANT OF THIS DISCREPANCY AND WERE INSTRUCTED TO WITNESS CAREFUL LY THE ELECTRICAL CHECKS BEFORE AND AFTER POTTING OF BUS ASSEMBLIES.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	A-99-24-3173F	FAR N/A 27-18315	930114	FACTORY	YES BENDIX-MONTROSE NO E 1096465-48
FAILURE MODE-OUT OF TOLERANCE. DURING MANUFACTURING TESTING OF THE TELEMETRY PACKAGE, THE MOTOR SPEED WAS 5.27 RPS AND SPECIFICATIONS ALLOW 5.0 PLUS OR MINUS 0.25 RPS.					
CORRECTIVE ACTION-INCREASED THE SPEED TOLERANCE FROM PLUS OR MINUS 5 PERCENT TO PLUS OR MINUS 6 PERCENT TO MINIMIZE REJECTIONS OF THESE MOTORS.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SP-AD-24-3264-F	FAR 7-01780-5	1380 930114	FACTORY	YES SERVONIC NO H-75
FAILURE MODE-STRUCTURAL. STATIC ERROR WAS -9.04 PERCENT. FAILURE CAUSED BY ENTRAPMENT OF PRESSURIZED AIR OR HYDRAUL IC FLUID BETWEEN BOURDON TUBE AND CASE CAUSING COUNTERACTION OF PORT PRESSURE CAUSING TRANSDUCER TO READ LOW. ANALYSIS IS SHOWED 2 PINHOLE LEAKS IN THE BRAZED END OF BOURDON TUBE CAUSED BY POOR VENDOR BRAZE.					
CORRECTIVE ACTION-VENDOR INCORPORATED NEW PROCEDURES TO PREVENT RECURRENCE OF THE FAILURE EFFECTIVE 18 DEC 82.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER, ELECTRICAL-CAPACITOR ERS	NG-AD-24-3148F	FAR 27-11111-888	930114	FACTORY	YES 60C NO
FAILURE MODE-OUT OF TOLERANCE. THE ABORT SENSING CONTROL UNIT WAS REJECTED WHEN THE RISETIME FOR THE LIQUID OXYGEN					

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SWITCH TELEMETRY MEASUREMENT WAS OBSERVED TO BE UNUSUALLY LONG. THE FAILURE WAS ATTRIBUTED TO AN INCORRECT CAPACITOR INSTALLED IN THE TELEMETRY FILTER.							091325
CORRECTIVE ACTION-MANUFACTURING AND INSPECTION PERSONNEL WERE ADVISED OF THE INSTALLATION ERROR. TIGHTER SURVEILLANCE IS BEING MAINTAINED IN THE ELECTRONICS MANUFACTURING AREA.							
INSTRUMENTATION-A/B	A-99-24-3346-F	FAR	030111	FACTORY	YES	BENDIX-PACIFIC	091300
TELEMETRY SET AND TRANSDUCER POWER SUPPLY-TUBE	87-01273-893				NO	1051440-9-B	
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE-THE SUBCARRIER OSCILLATOR TUBE PLATE VOLTAGE WAS REPORTEDLY READING HIGH. THE VOLTAGE REGULATOR TUBE V-101 WAS DISCOVERED NOT TO BE OPERATING PROPERLY. THE TUBE WAS FOUND TO BE CRACKED CAUSE OF CRACK UNKNOWN.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B	A-99-24-3166-F	FAR	134-F		YES		091000
TELEMETRY SET AND TRANSDUCER COMMUTATOR	87-18378-843		030104		NO		
FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR SPEED IMPROPER. FAILURE WAS NOT CONFIRMED.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B	MZ-99-24-3250-F	FAR	030104	FACTORY	YES	BENDIX	091114
TELEMETRY SET AND TRANSDUCER CRYSTAL RECTIFIER-WIRING	87-12768-801				NO		
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A SEGMENT 7 WAS READING ABOUT 15 PERCENT LOW DURING TELEMETRY SYSTEM CHECKOUT. THE CRYSTAL RECTIFIER WAS REPLACED AND OPERATION WAS FOUND TO BE SATISFACTORY. THE CRYSTAL RECTIFIER SOLDER JOINTS WERE EXAMINED AND FOUND TO BE POOR. OPERATION AFTER RE-SOLDERING WAS NORMAL. THE FAILURE WAS CAUSED BY POOR SOLDER JOINTS.							
CORRECTIVE ACTION-CONVAIR NOW REQUIRES THE TRAINING AND CERTIFICATION OF ALL ELECTRONIC TECHNICIANS, INSPECTORS, AND ASSEMBLY PERSONNEL IN A SOLDERING TECHNIQUE SCHOOL.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3184-F DIFFERENTIAL AMPLIFIER	FAR 87-01444-3	630103	FACTORY	YES	KINETICS NO W798
FAILURE MODE-FAIL DURING OPERATION. THREE AMPLIFIERS OSCILLATED DUE TO SENSITIVITY TO THE SIGNAL CONDITIONER LOAD.						
CORRECTIVE ACTION-ALL DIFFERENTIAL AMPLIFIERS OF P/N 87-01444-3 MADE BY KINETICS WITH S/N BELOW 61 WERE PURGED FROM STOCK AND RETURNED TO VENDOR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3144F CONNECTOR-WIRING	FAR 27-12373-893	134F 630103	FACTORY	YES	BENDIX NO 1056900-803
FAILURE MODE-STRUCTURAL. FAILED WHEN CHANNEL C DID NOT RESPOND TO VOLTAGE INPUT STIMULUS. THE FAILURE WAS CAUSED BY A BROKEN WIRE AT THE SOLDER CONNECTION FOR PIN J OF PLUG 10301J6.						
CORRECTIVE ACTION-QUALITY CONTROL IS MAINTAINING SURVEILLANCE OF PROCEDURAL ADHERANCE. SUBASSEMBLY PROCEDURES WERE REVIEWED TO INSURE PROPER INSTALLATION OF ALL EQUIPMENT. RESPONSIBLE PERSONNEL WERE INSTRUCTED IN THE IMPORTANCE OF PROPER HANDLING OF EQUIPMENT AND PARTS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3235-C COMMUTATOR-GEAR MOTOR	FAR 95-13556-3	630102	FACTORY	YES	REED AND REESE NO 1086483-63
FAILURE MODE-ERRATIC OPERATION DURING FACTORY CHECKOUT. FAILURE WAS NOT ANALYZED AS THIS GEAR MOTOR WAS PURGED FROM STOCK.						
CORRECTIVE ACTION-NONE. THIS GEAR MOTOR IS NO LONGER BEING MANUFACTURED AND HAS BEEN PURGED FROM STOCK.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3177-F DIFFERENTIAL AMPLIFIER	FAR 27-01444-3	630102	FACTORY	YES	KINETICS NO W798
FAILURE MODE-FAIL DURING OPERATION. DIFFERENTIAL AMPLIFIER WOULD NOT ZERO. AMPLIFIER FAILURE WAS DUE TO IMPROPER BOUNDING OF THE AMPLIFIER TO TEST SET.						
CORRECTIVE ACTION-NONE-CORRECTIVE ACTION HAD BEEN TAKEN BY INCLUSION OF TCA-1 TO EOP 330.771 PROVIDING A BETTER SRO						

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UNLOADING METHOD.							092513						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3848-F TRANSDUCER	FAR 7-01731-9	134F 630102	FACTORY	YES	BOURNS YES 71724-0-38-758	091607						
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER FOR MEASUREMENT H33P INDICATED 90 PERCENT WHEN 86 PERCENT WAS EXPECTED. FAILURE WAS NOT CONFIRMED. REPORTED FAILURE MUST HAVE BEEN EXTERNAL TO THE TRANSDUCER.													
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							091224						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3191F COMMUTATOR BRUSH	FAR 27-01389-3	630102	FACTORY	YES	FIFTH DIM. NO 828C-131							
FAILURE MODE-OPEN (ELECTRICAL). THE LONG-WIRE CENTER BRUSH WAS BURNED AND PARTIALLY MELTED. NINE SEGMENTS SHOWED OPEN. IT IS POSSIBLE THAT 28V DC CAN BE APPLIED TO THE INFORMATION /OOD NUMBERED/ SEGMENTS OF THE COMMUTATOR. EVEN NUMBERED SEGMENTS ARE CONNECTED TO NEGATIVE PEDestal VOLTAGE. COMMUTATOR BRUSHES MAKE BEFORE THEY BREAK. THEREFORE, IT IS POSSIBLE FOR INFORMATION SEGMENTS TO BE DIRECTLY CONNECTED TO NEGATIVE PEDestal VOLTAGE PRODUCING EXCESSIVE CURRENT TO BURN BRUSHES AND SEGMENTS.													
CORRECTIVE ACTION-A DESIGN CHANGE WAS MADE BY INSERTING A 33 KILOHM RESISTOR BETWEEN THE EVEN NUMBERED SEGMENTS AND THE GROUND TO LIMIT THE CURRENT. CHANGE-Y, DATED 1-3-63 ON VENDOR DWG PB-3493-101.													
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3156-F TAPE RECORDER	FAR 27-01637-1	134-F 621230	FACTORY	YES	APPLIED MAGNET NO IC	097079						
FAILURE MODE-FAIL DURING OPERATION AFTER A 2-HOUR CONTINUOUS OPERATION THE TAPE RECORDER WAS STOPPED FOR 30 MINUTES. TELEMETRY PACKAGE AND FRICTION HEAT SOFTENED THE TAPE OXIDE COATING BONDING AGENT, PERMITTING THE TAPE TO ADHERE TO THE RECORDING AND TRANSMITTING HEADS.													
CORRECTIVE ACTION-THE TAPE RECORDER VENDOR IS INSTALLING A DIFFERENT INVERTER TO INCREASE THE DRIVING MOTOR OUTPUT POWER TO CREATE SUFFICIENT FORCE ON THE MAGNETIC TAPE TO FREE IT FROM AN ADHERED POSITION ON THE RECORDING AND TRANSMITTING HEADS.													
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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-32187 OSCILLATOR	FAR 7-01664-883	8800 081226	FACTORY	NO	BENDIR-PACIFIC	000007
FAILURE MODE-DRIFT. OSCILLATOR DRIFT CAUSED INCONSISTENT DATA.							
CORRECTIVE ACTION-NONE. THE REPORTED FAILURE WAS NOT CONFIRMED. MISINTERPRETATION OF THE SPECIFICATIONS CAUSED THE PART TO BE REJECTED. THE SPEC. CONTROL DRAWING WAS CHANGED TO CLARIFY THE DESIGN CRITERIA PERTAINING TO GRADUAL VERS US ABRUPT SHIFTS IN THE OSCILLATOR FREQUENCIES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-32141F OSCILLATOR	FAR 7-01668-887	081226	FACTORY	YES	BENDIX NO 1041981-13-K	000009
FAILURE MODE-OUT OF SPECIFICATION. OSCILLATOR COULD NOT BE ADJUSTED TO MEET SPECIFICATION. VACUUM TUBE CHANGED CHAR ACTERISTICS.							
CORRECTIVE ACTION-CHANGE TO LIGHTWEIGHT TELEMETRY CANISTER WITH SOLID STATE OSCILLATOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3234-F TRANSDUCER	FAR 7-01731-9	134F 081226	FACTORY	YES	BOURNS NO 71724-0-33-732	001806
FAILURE MODE-CONTAMINATION. TRANSDUCER FOR MEASUREMENT H33P INDICATED 12 PERCENT TELEMETRY INFORMATION BANDWIDTH DI STORTION WHEN ZERO WAS EXPECTED. FAILURE WAS NOT CONFIRMED. HOWEVER, A LONG FIBER FOUND IN THE SILICONE OIL COULD HA VE CAUSED THE REPORTED FAILURE BY LOGGING BETWEEN THE WIPER AND THE RESISTANCE COIL.							
CORRECTIVE ACTION-REQUESTED THE VENDOR REEXAMINE THE TRANSDUCER CLEANING PROCEDURES AND INVESTIGATE THE CLEANLINESS OF THE SILICONE OIL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3193F WIRESS	FAR 87-11464-881	1390 081226	FACTORY	YES NO		
FAILURE MODE-OPEN CIRCUIT. WIRE T120322 WAS FOUND OPEN BETWEEN PIN P OF PLUG 2P8 AND PIN T OF PLUG 3P8. SINCE WIRE WAS BROKEN INSIDE POTTING, IT WAS DAMAGED DURING ASSEMBLY.							
CORRECTIVE ACT. APPROPRIATE PERSONNEL WERE INFORMED OF THE DISCREPANCY, AND THE IMPORTANCE OF FOLLOWING THE INSPE							

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CTION PROCEDURES TO PREVENT THIS TYPE OF FAILURE.							007976
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER-CAPACITOR ERS	SP-89-24-3181-F 27-01444-3	FAR	081819	FACTORY	YES KINETICS NO M-798		008314
FAILURE MODE-OPEN-ELECTRICAL. DIFFERENTIAL AMPLIFIER FAILED WHEN IT HAD NO OUTPUT FROM EITHER CHANNEL AFTER VIBRATION. AMPLIFIER FAILURE WAS DUE TO A SHORT CIRCUIT OF CAPACITOR C-8 DURING VIBRATION.							
CONNECTIVE ACTION-A VIBRATION REQUIREMENT, IN ACCORDANCE WITH MANUFACTURING SPECIFICATION TO BE ADDED TO THE RECEIVING INSPECTION PROCEDURE FOR THIS AMPLIFIER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONNECTOR, ELECT-PIN ERS	A-99-24-3112-F 27-12573-895	FAR	134F	FACTORY	YES BENDIX NO		003792
FAILURE MODE-FAIL DURING OPERATION. THE TELEPAK FAILED WHEN THERE WAS A LOSS OF COMMUTATION ON SUBCARRIER CHANNEL 1. THE FAILURE WAS CAUSED BY THE MISALIGNMENT OF THE MALE CONNECTOR ON THE DIFFERENTIAL AMPLIFIER. TARNISHING OF THE CONNECTOR PINS WAS A POSSIBLE CONTRIBUTING CAUSE OF FAILURE.							
CONNECTIVE ACTION-THE AMPLIFIER HAS BEEN COMPLETELY REPACKAGED. THE NEW UNITS CONTAIN A TWO-PIECE ALUMINUM CASTING PROVIDING VERY RIGID MOUNTING SURFACES FOR THE CONNECTOR. SPECIFICATION CONTROL DRAWING 27-01241 WAS REVISED TO REQUIRE USE OF THE DA-150, AL15, CONNECTOR. THIS CONNECTOR HAS GOLD PLATING 100 MICROINCHES THICK. ALSO, THESE OLD TELEPAKS ARE BEING PHASED OUT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	A-49-24-3111-F 27-12573-895	FAR	134F	FACTORY	YES BENDIX NO		003793
FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATOR MOTOR SPEED WAS RECORDED AT 2.372 RPS WHEREAS THE SPEED SHOULD BE 2.3 RPS PLUS OR MINUS 0.5 PERCENT. THE FAILURE IS ATTRIBUTED TO EXTREME BRUSH WEAR.							
CORRECTIVE ACTION-THESE REED AND REESE MOTORS HAVE BEEN REPLACED BY A NEWER MODEL BY ANOTHER VENDOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER-POWER SUPPLY ERS	A362-0047/LR-401-00-191	FLIGHT	1310	1-2	YES AM/ORT-17 NO		
FAILURE MODE-SHORT (ELECTRICAL). IT WAS CONCLUDED THAT THE MOST PROBABLE CAUSE OF THE LOSS OF TELEMETRY WAS A SHORT IN THE TYPE FAILURE WITHIN THE AM/DAT-17 TRANSMITTER POWER SUPPLY. THE ELECTRICAL SHORT IN THE TRANSMITTER RESULTED IN							

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<p>OPENING OF A 15-AMP BLOW POWER INPUT FUSE WHICH CAUSED THE LOSS OF R-F ENERGY TRANSMISSION.</p> <p>SYSTEM EFFECT-OPERATION STOPS PREMATURELY.</p> <p>VEHICLE EFFECT-NONE. HOWEVER, LACK OF TELEMETRY DATA PREVENTED EVALUATION OF THE FLIGHT FAILURE.</p> <p>CORRECTIVE ACTION-THE AN/DKT-17 TRANSMITTER WAS MODIFIED TO INCLUDE AN IMPROVED TRANSMITTER POWER SUPPLY.</p>							993175
<p>INSTRUMENTATION-A/B</p> <p>TELEMETRY SET AND TRANSDUCER SIGNAL CONDITIONER</p> <p>ER3</p> <p>FAILURE MODE-OPEN (ELECT). FAILED WHEN CALIBRATION PULSES WERE LOST ON CHANNELS 11, 13, AND C. FAILURE WAS CONFIRMED AND WAS CAUSED BY A LOOSE FLAKE OF PAINT PREVENTING PIN 18 OF THE SIGNAL CONDITIONER MODULE FROM MAKING PROPER CONTACT.</p> <p>CORRECTIVE ACTION-PERSONNEL WERE CAUTIONED TO INSURE CLEANLINESS OF PACKAGES. TO FURTHER INSURE CLEANLINESS, ALL UNITS IN PRODUCTION AREAS ARE NOW BEING COVERED WHEN NOT IN WORK.</p>							993323
<p>INSTRUMENTATION-A/B</p> <p>TELEMETRY SET AND TRANSDUCER CONNECTOR-WIRING</p> <p>ER3</p> <p>FAILURE MODE-SHORT (ELECT) BETWEEN PINS A AND B ON THE CONNECTOR SHORTED SVDC EXCITATION TO GROUND. SHORT RESULTED FROM POOR SOLDERING TECHNIQUES.</p> <p>CORRECTIVE ACTION-FINDINGS OF THE FAILURE ANALYSIS WERE REVIEWED WITH INSPECTION AND ELECTRICAL WAREHOUSE PERSONNEL.</p>							996021
<p>INSTRUMENTATION-A/B</p> <p>TELEMETRY SET AND TRANSDUCER TLM CANISTER</p> <p>ER3</p> <p>FAILURE MODE-FAIL DURING OPERATION. CHANNEL E HAD NO NEGATIVE GATE. FAILURE ANALYSIS DETERMINED THAT THE CANISTER WAS FUNCTIONING PROPERLY.</p> <p>CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.</p>							996308

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER ERS	SP-9D-24-3184F SP-9D-24-3184F	FAR 27-18890-017	1310 081818	WTR	NO YES	097834
FAILURE MODE-SHORT(ELECT). EXITATION VOLTAGE IN THE SIGNAL CONDITIONER REPORTED AS ZERO WHEN SVDC WAS EXPECTED.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	SP-9D-24-3304F SP-9D-24-3304F	FAR 7-01864-039	1860 081812	20	YES BENDIX NO 1040699-11M	008477
FAILURE MODE-OUT OF SPECIFICATION. THE 7.38-KC. OSCILLATOR WAS REPORTED NONLINEAR. FAILURE CONFIRMED.						
CORRECTIVE ACTION-REQUESTED A SURVEY TO BE CONDUCTED ON ALL SUBCARRIER OSCILLATORS OF THE VACUUM-TUBE-TYPE MANUFACTURED BEFORE 1961. REQUEST OSCILLATORS FALLING IN THIS CATEGORY BE PURGED FROM STOCK.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONNECTOR-WIRING ERS	SP-9D-24-3176-F SP-9D-24-3176-F	FAR N/A 27-11409-013	081811 081811	WTR	YES BENDIX NO PT07E-8-45	009210
FAILURE MODE-OPEN (ELECT). THE REPORTED FAILURE WAS AN INTERMITTENT CONNECTION AT PIN 8. THE WIRE WAS FOUND TO BE 8 BOWEN.						
CORRECTIVE ACTION-INSPECTION AND MANUFACTURING PERSONNEL WERE MADE AWARE OF THE DISCREPANCY AND WERE INSTRUCTED TO INSURE REJECTION OF ELECTRICAL CABLES THAT HAVE BROKEN WIRES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER SEAL ERS	SP-9D-24-3153 SP-9D-24-3153	FAR 27-01843-9	1960 081811	FACTORY	YES BOURNS NO 43011-0-150-78	090724
FAILURE MODE-LEAK-EXTERNAL. THE OUT PUT WAS 5 PERCENT 18V, 10 PERCENT WAS EXPECTED. THE CAUSE OF FAILURE WAS LOSS OF REFERENCE PRESSURE AT THE EVACUATION TUBE DUE TO AN INADEQUATE SEAL.						
CORRECTIVE ACTION-THE PROCEDURE FOR SEALING MODEL 480 TRANSDUCERS WAS CHANGED FROM SOLDER SEALING TO RESISTANCE WELDING OF A RIVET INTO THE EVACUATION ORIFICE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B SUB-SYSTEM	A-89-24-3240-F TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	FAR 7-01844-881	081210	FACTORY	YES	BENDIX PACIFIC MO 1040899-4T	080759
FAILURE MODE-OUT OF SPECIFICATION. OSCILLATOR HAD LOW OUTPUT. PROBLEM CAUSED BY TUBE AGING.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	SP-89-24-3233-C TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	FAR 7-01848-883	081210	FACTORY	YES	BENDIX MO 1041863-2K	080759
FAILURE MODE-ERRATIC OPERATION DURING FACTORY CHECKOUT. THE OSCILLATOR DISPLAYED AN INTERMITTENT OUTPUT. CAUSE OF FAILURE WAS NOT DETERMINED AS OSCILLATOR WAS NOT RECEIVED FOR FAILURE ANALYSIS.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-89-24-3159-F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR 87-01843-9	134F 081210	FACTORY	NO	BURNS MO 42011-0-150-75 2	080759
FAILURE MODE-OUT OF SPECIFICATION. TRANSDUCER WAS 100 PERCENT ABOVE SPECIFICATION AT 75 PSIG. FAILURE WAS BELIEVED CAUSED BY OVERPRESSURIZATION.							
CORRECTIVE ACTION-FACTORY PERSONNEL WERE ALERTED TO THE OVERPRESSURIZATION AND HAVE BEEN INSTRUCTED TO EXERCISE GREATER CARE IN PERFORMING THE PRESSURE TESTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	SP-89-24-3157F TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR 87-92800-033	118D 081210	FACTORY	YES	SERVOMIC MO L-64	080759
FAILURE MODE-ERRATIC OPERATION. WITH BOTH PRESSURE LINES DISCONNECTED, 7 PERCENT IDW WAS OBTAINED. WITH THE HIGH PRESSURE LINE CONNECTED, 7 PERCENT WAS OBTAINED WHEN 30 PERCENT IS REQUIRED. TAPPING THE LINE CAUSED 30 PERCENT IDW.							
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR BEARING ERS	A-98-24-813-F	PAR	SE 821209	AMR	YES NO	REED AND REESE NO 1086495-38	091975	
FAILURE MODE-FAIL DURING OPERATION. UNIT WAS PRODUCING A LOUD HIGH PITCHED NOISE. FAILURE CONFIRMED. CAUSE-2 BAD SE ARINGS IN THE MOTOR.								
CORRECTIVE ACTION-PAR 98-24-637 RECOMMENDED THAT THIS TYPE MOTOR BE REPLACED WITH A MORE RELIABLE UNIT. UNIT IS BEI NG REPLACED WITH A BENDIX MONTROSE TYPE EFFECTIVE AS OF 1 DECEMBER 1981.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER-TLM ERS	AX82-0070/FC-40-04-0802-008 COMPOSITE-FACTORY	1180 621208	YES NO					090769
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE BULKHEAD DIFFERENTIAL PRESSURE READING TOO HIGH. CAUSED BY FAULTY TR ANSDUCER.								
SYSTEM EFFECT-NONE.								
VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST COMPOSITE TESTING REQUIRED TO VERIFY SATISFACTORY OPERATION AFTER REPLAC EMENT.								
CORRECTIVE ACTION-THE TRANSDUCER WAS REPLACED.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-DIODE ERS	XZ-90-24-3187-F	PAR 27-18762-801	1810 621207	WTR	YES NO	CO/C NO 203-0107	090303	
FAILURE MODE-OUT OF TOLERANCE. VOLTAGE ACROSS DIODE IN838 HAD DECREASED FROM A NOMINAL VALUE TO APPROX. 2.9 VOLTS. THIS LOWER VOLTAGE TO THE MULTIVIBRATOR CIRCUIT CAUSED THE FREQUENCY TO INCREASE. THE OPERATING CURRENT THROUGH THE DIODE WAS 9.8 MILLIAMPERES. (SERIES REGULATOR CIRCUIT).								
CORRECTIVE ACTION-VENDOR REQUESTED TO TIGHTEN O.C. (SEE VENDOR CORRECTIVE ACTION REQUEST 3073-83, DATED 3-9-83).								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER/TTY ERS	A-98-24-3232-F	PAR 27-18413-819	10-F 621207	FACTORY	YES NO			
FAILURE MODE-FAILED DURING OPERATION. OUTPUT AMPLITUDE WAS TOO LOW FOR PROPER RECORDING OF DATA. PACKAGE WAS RETEST ED ON THE COMPONENT LEVEL AND REPORTED DISCREPANCY COULD NOT BE CONFIRMED.								

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTN	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-NO CORRECTIVE ACTION WAS TAKEN AS THE REPORTED FAILURE WAS NOT CONFIRMED.						897737
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3128P OSCILLATOR	FAR 27-11841-903	230D 621207	FACTORY	YES	SEMOIX NO 1045830	893765
	FAILURE MODE-ERRATIC OPERATION. THE TELEPAR FAILED WHEN EXCESSIVE NOISE LEVEL OCCURRED ON SUBCARRIER CHANNEL 15. THE NOISE WAS CAUSED BY AN IMPROPERLY ADJUSTED OUTPUT OF THE SUBCARRIER OSCILLATOR. INADEQUATE TEST METHODS IN PRODUCTION CHECKOUT RESULTED IN MALADJUSTMENT.						
	CORRECTIVE ACTION-TELEMETERING CHECKOUT PERSONNEL WERE INSTRUCTED IN THE ADJUSTMENT OF THE CHANNEL-15 OSCILLATOR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3119P COMMUTATOR-MOTOR	FAR 27-11841-903	230D 621207	FACTORY	YES	SEMOIX NO	893766
	FAILURE MODE-OUT OF TOLERANCE. THE TELEMETRY PACKAGE HAD A CHANNEL E COMMUTATOR SPEED OF 28.4 RPS. THE ALLOWABLE TOLERANCE IS 30 RPS PLUS OR MINUS 5 PERCENT. THE FAILURE WAS DUE TO THE REED AND REESE COMMUTATOR MOTOR.						
	CORRECTIVE ACTION-THE REED AND REESE COMMUTATOR MOTOR IS BEING REPLACED WITH ONE MANUFACTURED BY ANOTHER VENDOR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3183P AMPLIFIER DIFFERENTIAL DIODE	FAR 27-01444-3	621206	FACTORY	YES	KINETICS NO M798	893271
	FAILURE MODE-FAIL DURING OPERATION. AMPLIFIER FAILURE WAS DUE TO A ELECTRICALLY LEAKY ZENER DIODE.						
	CORRECTIVE ACTION-MORE-ONLY THE MODE OF DIODE FAILURE IS KNOWN AND NOT THE CAUSE. NO EVIDENCE WAS FOUND TO EXPLAIN WHY DIODE CHARACTERISTICS HAD CHANGED BETWEEN THE TIME THE AMPLIFIER PASSED RECEIVING INSPECTION AND THE TIME OF FAILURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-99-24-3116P CANISTER	FAR 27-12290-813	621206	FACTORY	YES	NO	
	FAILURE MODE-CONTAMINATION. THE TELEMETRY CANISTER WAS REJECTED BECAUSE THERE WAS FUNGUS THROUGHOUT THE CANISTER. THE FUNGUS, WHICH WAS IDENTIFIED AS CORROSION, WAS CAUSED BY MOISTURE GETTING INSIDE THE CANISTER.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							003766
	CORRECTIVE ACTION-IT WAS REQUESTED THAT A DESICCANT BE PLACED INSIDE THE CANISTER ALSO, THE VENDOR WAS REQUESTED TO REVIEW TREATMENT PROCEDURES OF THE MAGNESIUM CASTING AND ELIMINATE THE NECESSITY OF HANDLING THE CASTING DURING TREA THEM.						
							000129
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATION-RELAY ERS	AX82-0071/FC-CO-03-0008-008 COMPOSITE-FACTORY 2300 821203 87-11018-823			YES NO		
	FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE 100PCT FBW INFLIGHT CALIBRATION PULSE ON CH. 3 WAS NOT PRESENT DUE TO A FAULTY CALIBRATION RELAY IN THE ACCESSORY PACKAGE. SYSTEM EFFECT-NONE. VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RETESTING WAS REQUIRED. CORRECTIVE ACTION-THE ACCESSORY CANISTER WAS REPLACED.						
							000130
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	AX82-0071/FC-CO-03-0008-008 COMPOSITE-FACTORY 2300 21203 87-11041-903			YES NO		
	FAILURE MODE-ERRATIC OPERATION. CHANNEL 13 INDICATED NOISE AND INTERMITTANT SPIKING ON SEGMENT 25 (TRANSDUCER POWER SUPPLY VOLTAGE). SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE DELAYED. CORRECTIVE ACTION-TELEMETRY WAS REPLACED.						
							000924
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC MP CANISTER NO.2 BATTERY 8001B CIR ERS	AX82-0108/PI-601-00-21 COUNTDOWN 821203 -7080		11	YES NO		
	FAILURE MODE-ELECTRICAL OPEN. BATTERY FAILED TO ACTIVATE BECAUSE 8001B CIRCUIT WAS OPEN. SYSTEM EFFECT-OPERATION DOES NOT START. BATTERY NOT ACTIVATED. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-BATTERY REPLACED IN 84077E.						
							PAGE 0360

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI VENDOR NAME	OTH VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC R/C CANISTER NO.8 ERS	A482-0108/PI-601-00-81 A482-0108/PI-601-00-81 A482-0108/PI-601-00-81	COUNTDOWN 87-18372-037	21F 081203	11 -3300	YES NO	YES NO
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE-ATTENUATION OF RF CHANNEL IS NEGATIVE PEDESTAL WHEN ADF PODS ARE PU MOTIONING.						
SYSTEM EFFECT-ERRATIC OPERATION OF RF 2 CHANNEL IS.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-CANISTER REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC LIMITER FILTER ERS	A-99-24-3300-F A-99-24-3300-F A-99-24-3300-F	FAR 27-12406-3	081203	FACTORY	YES	NO
FAILURE MODE-OUT OF TOLERANCE. AFTER POTTING. THE OUTPUT VOLTAGE PEAKED AT 9600 LPS AND TOLERANCE IS IN THE RANGE O F 9712 CPS TO 11200 CPS. LIMITER FILTER WAS FUNCTIONALLY TESTED AND THE VOLTAGE OUTPUT WAS PEAKED AT A FREQUENCY OF 9732 CPS BY ADJUSTING THE FREQUENCY-ADJUST POTENTIOMETER R-5.						
CORRECTIVE ACTION-UNKNOWN. LIMITER FILTER OPERATED SATISFACTORILY BY PERFORMING A NORMAL ADJUSTMENT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER. POTENTIOMETER ERS	A-99-04-4122-F A-99-04-4122-F A-99-04-4122-F	FAR 27-12406-3	081203	FACTORY	YES	NO
FAILURE MODE-STRUCTURAL. THE LIMITER FILTER WAS REJECTED AFTER POTTING WHEN THE OUTPUT VOLTAGE COULD NOT BE ADJUSTE D BY TRIMPOT R-5. THE MALFUNCTION OF R-5 WAS DUE TO THE WIPER ARM BEING STUCK TO THE RESISTANCE COIL.						
CORRECTIVE ACTION-INSPECTION PERSONNEL WERE NOTIFIED OF THE DISCREPANCY WITH EMPHASIS ON IMPORTANCE OF THE LIMITS BE ING PROPERLY ASSEMBLED BEFORE THE POTTING PROCESS AS HEAT GENERATED DURING THE POTTING PROCESS MAY DAMAGE THE POTENT IOMETER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER ERS	80-00-24-3301-F 80-00-24-3301-F 80-00-24-3301-F	FAR 27-12308-671	1100 081204	WTR	NO	NO
FAILURE MODE-OUT OF TOLERANCE. THE 100 PERCENT REFERENCE PULSE READ 178 VDC INSTEAD OF 8.0. VDC FAILURE UNCONFIRMED . PROCEDURE SHOULD HAVE BEEN 0.8 VDC.						

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							000413
	CORRECTIVE ACTION-NONE. NO FAILURE OCCURRED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR CRS	SP-99-24-3130F OSCILLATOR	FAR 87-12768-001	1960 621203	FACTORY	YES	BENDIX-PACIFIC NO	001347
	FAILURE MODE-OUT OF TOLERANCE. THE TELEMETRY CANISTER FAILED WHEN IT WAS REPORTED THAT THE CHANNEL 5 OSCILLATOR WAS NOISY AND OUT OF FREQUENCY. THE FREQUENCY WAS 933 CPS WHEN IT SHOULD HAVE BEEN 1300 CPS. A COMBINATION OF WORKMANSHIP PROBLEMS IN THE OSCILLATOR CONTRIBUTED TO THE FAILURE. LOOSE SOLDER WAS LEFT INSIDE THE CASE. LAMOS WERE NOT COMPLETELY COVERED WITH SOLDER. INSULATION MATERIAL WAS NOT CLOSE ENOUGH TO THE SOLDER. THE WIRE WAS WICKED BY SOLDER.						
	CORRECTIVE ACTION-VENDOR INSPECTION AND LINE PERSONNEL WERE MADE AWARE OF THE FAILURE AND ITS CAUSES. ALSO, A SEPARATE AREA HAS BEEN SET UP FOR POTTING AND REMARK OPERATIONS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR CRS	SP-99-24-3143-F OSCILLATOR	FAR 85-87900-036	621203	FACTORY	YES	TEXAS INSTRUMENTS NO 425202-10	001139
	FAILURE MODE-FAIL DURING OPERATION. FAILED WHEN THE OUTPUT FREQUENCY REMAINED FIXED AT 1032 CPS REGARDLESS OF INPUT STIMULUS. FAILURE WAS CONFIRMED. THE CAUSE OF FAILURE COULD NOT BE FOUND DUE TO THE LACK OF VENDOR TECHNICAL INFORMATION AND THE DESTRUCTION OF COMPONENTS IN THE ATTEMPT TO DEPOT.						
	CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER-WIRING CRS	A-99-24-3117F AMPLIFIER-WIRING	FAR 27-01275	621200	FACTORY	YES	BENDIX NO 1051269-1A	003787
	FAILURE MODE-ERRATIC OPERATION. THE VIDEO AMPLIFIER FAILED DURING VIBRATION TESTING OF THE TELEMETRY PACKAGE WHEN ALL VIDEO AMPLIFIER CHANNELS WERE OPERATING INTERMITTENTLY. THE FAILURE WAS DUE TO THE POOR LOCATION OF THE YELLOW IN PUT WIRE CONNECTING R1 AND R12. THE WIRE ALSO LACKED THE USUAL TIEDOWN.						
	CORRECTIVE ACTION-THE VENDOR ELIMINATED THE NOISE PROBLEM IN THE VIDEO AMPLIFIER BY REMOVING THE TIE BETWEEN THE CO AXIAL CABLE AND THE YELLOW LEAD WIRE, AND BY TYING THE YELLOW LEAD TO A RIGID MEMBER TO KEEP IT FROM VIBRATING.						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-3189-F TRANSDUCER, INSTRUMENTATION	FAR 7-01720-8	981200	ETR	YES NO	BOURNS
<p>FAILURE MODE-CONTAMINATION. 3 TRANSDUCERS FAILED DUE TO AN OPEN OUTPUT CIRCUIT. FAILURES WERE NOT CONFIRMED, HOWEVER THE REPORTED FAILURES MAY HAVE BEEN OF AN INTERMITTENT NATURE DUE TO THE PRESENCE OF CONTAMINANTS FOUND IN THE TRANSDUCERS. THESE SOLDER SPLASHES AND FIBERS COULD HAVE CAUSED THE POTENTIOMETER WIPER ARM TO LIFT OFF THE MANDEL AND INDICATE AN OPEN CONDITION. THESE CONTAMINANTS ARE A RESULT OF POOR VENDOR QUALITY CONTROL.</p>						
<p>CORRECTIVE ACTION-SINCE THE MANUFACTURE OF THIS TRANSDUCER, THE VENDOR HAS INITIATED QUALITY CONTROL PROCEDURES AND CLEANING TECHNIQUES WHICH SHOULD ELIMINATE THIS TYPE OF FAILURE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-3170-F TRANSDUCER, INSTRUMENTATION	FAR 7-01720-8	981130	FACTORY	NO NO	BOURNS
<p>FAILURE MODE-ERRATIC OPERATION. TRANSDUCER INDICATED AN INTERMITTENT WIPER ARM OPEN DURING AN END-TO-END CHECK. CONTINUITY WAS LOST WHEN THE TRANSDUCER WAS TAPPED LIGHTLY. FAILURE WAS CAUSED BY IMPROPER TESTING OF THE TRANSDUCER. TAPPING THE TRANSDUCER CAUSED OHMMETER LEADS TO JUMP, BREAK CONTACT WITH THE TRANSDUCER PIN, AND GIVE AN OPEN INDICATION.</p>						
<p>CORRECTIVE ACTION-REQUESTED PERSONNEL USE IMPROVED TESTING TECHNIQUES AND METHODS TO PREVENT THIS PROBLEM.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	P1-8CO-01-21 TRANSDUC TLM CANISTER	COMPOSITE-B FACT	21F 981128	ETR-11	YES YES	BOURNS
<p>FAILURE MODE-ERRATIC OPERATION. SPIN MOTOR TEST OUTPUT, WAS ERRATIC THROUGHOUT THE TEST. MOST OF THE MEASUREMENT CHANGES WERE NOT OF A NATURE TO INDICATE VALID 6Y80 SPEED ERRORS.</p>						
<p>SYSTEM EFFECT-ERRATIC OPERATION. MEASUREMENT 8994X, 4PIN MOTOR TEST OUTPUT, WAS ERRATIC THROUGHOUT THE TEST.</p>						
<p>VEHICLE EFFECT-NONE.</p>						
<p>CORRECTIVE ACTION-INVESTIGATE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3143-F OSCILLATOR-DIODE	FAR 87-01807-118	1080 981128	FACTORY	YES NO	BENDIX-PACIFIC NO 313183-8-2
<p>FAILURE MODE-ERRATIC OPERATION. THE OSCILLATOR FAILED WHEN IT HAD AN ERRATIC OUTPUT. THE FAILURE WAS DUE TO DIODE C-1 BEING NOISY, A WIRE STRAND FOUND IN THE POTTING, ALTHOUGH UNDESIRABLE, WAS NOT THE CAUSE OF FAILURE.</p>						

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	CORRECTIVE ACTION-VENDOR INSPECTION AND LINE PERSONNEL WERE MADE AWARE OF THE FAILURE. EFFECTIVE 8 FEBRUARY 1963 A SEPARATE AREA WAS SET UP FOR POTTING AND REMOVAL OPERATIONS.						003320
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SWITCH-PRESSURE ERS	MS-99-24-3101-F INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SWITCH-PRESSURE ERS	FAR 97-44900-498	1300 021127	FACTORY	NO	SERVONICS NO P-20-4	003764
FAILURE MODE-OUT OF TOLERANCE THE DIFFERENTIAL-PRESSURE SWITCH WOULD NOT ACTUATE WITHIN THE SPECIFICATION TOLERANCE OF 2.5 PLUS OR MINUS 0.5 PSID. THE FAILURE WAS THE RESULT OF INCORRECT GOC STANDARDS LABORATORY CALIBRATION TECHNIQUES USED TO DEFINE THE SWITCH SET POINT.							
CORRECTIVE ACTION-THE GOC STANDARDS LABORATORY WAS REQUESTED TO TAKE ACTION TO INSURE THAT THE PRESSURE SWITCH AMPERAGE LIMIT IS NOT EXCEEDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	NZ-99-24-3103F INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FAR 97-18762-001	1620 021126	FACTORY	YES	BENDIX NO	003762
FAILURE MODE-OUT OF TOLERANCE. THE REPORTED SYMPTOM OF THE TELEPAK FAILURE WAS AN UPWARD SHIFT OF 1.8 MEGACYCLES IN TRANSMITTER OUTPUT FREQUENCY. THE FAILURE WAS NOT CONFIRMED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SWITCH-PRESSURE ERS	MS-99-24-3102-F INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SWITCH-PRESSURE ERS	FAR 97-44900-498	1300 021122	FACTORY	YES	SERVONICS NO P-20-4	003763
FAILURE MODE-OUT OF TOLERANCE. THE DIFFERENTIAL-PRESSURE SWITCH WOULD NOT ACTUATE WITHIN THE SPECIFIED TOLERANCE OF 2.5 PLUS OR MINUS 0.5 PSID. THE FAILURE WAS NOT CONFIRMED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	SP-99-24-3114-F INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	FAR	8900 021121	FACTORY	YES	REED AND REESE NO 1096405-38	
FAILURE MODE-OUT OF TOLERANCE. THE D. C. SEARNOTON FAILED WHEN THE OUTPUT SPEED WAS TOO SLOW. THE SLOW OUTPUT SPEED							

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IS ATTRIBUTED TO ARMATURE BRUSH CARBON CREATING A RESISTANCE BETWEEN THE GOVERNOR POINTS.							093790
CORRECTIVE ACTION-NONE. REED AND REESE D. C. GEARMOTORS ARE NO LONGER BEING PURCHASED.							097902
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	SP-99-24-3319-F PAR 99-19686-923	1180 681115	FACTORY	YES NO			097909
FAILURE MODE-OUT OF TOLERANCE. THE RF POWER OUTPUT WAS 1 WATT WHEN 3 WATTS WAS EXPECTED. FAILURE ANALYSIS REVEALED THE R F FILTER WAS OUT OF ADJUSTMENT.							097909
CORRECTIVE ACTION-VENDOR WAS NOTIFIED OF FAILURE AND REQUESTED TO REVIEW CHECKOUT PROCEDURES.							097909
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	A-99-24-3414F PAR 27-01229-3	135F 681115	FACTORY	YES NO	1080680-1-C		095304
FAILURE MODE-FAIL DURING OPERATION. AMPLIFIER REPORTEDLY DREW EXCESSIVE CURRENT. FAILURE WAS CAUSED BY THE VACUUM TUBE BEING IMPROPERLY INSTALLED IN ITS SOCKET.							095304
CORRECTIVE ACTION-NONE. VENDOR REVIEWED PROBLEM BUT COULD NOT DETERMINE HOW MISINSTALLATION OCCURRED.							095304
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	A-99-24-3239-F PAR 27-01279-3	681115 681115	FACTORY	YES NO	1051440-4B		095304
FAILURE MODE-SHORTCIRCUIT. INPUT CURRENT WAS 7.0 AMPERES WHEN 5.0 AMPERES WAS EXPECTED. TWO SHORTED TRANSISTORS CAUSED FAILURE.							095304
CORRECTIVE ACTION-NONE. CAUSE OF TRANSISTOR FAILURE COULD NOT BE FOUND.							095304
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	SP-99-24-3204-F PAR 7-01728-11	1980 681115	FACTORY	YES NO	48013-8-30-758		095304
FAILURE MODE-STRUCTURAL. TRANSDUCER FOR MEASUREMENT FIP INDICATED AN OUTPUT OF 0.875 VOLT DC WHILE THE MAXIMUM OUTPUT ALLOWABLE WAS 0.650 VOLT DC. FAILURE WAS DUE TO OVERPRESSURIZATION WHICH COULD HAVE OCCURRED WHEN THE TRANSDUCER WAS CLEANED OR WHEN IT WAS CHECKED WHILE ON THE MISSILE.							095304

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SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER									
CORRECTIVE ACTION-CAUTIONED CLEANING PERSONNEL TO EXERCISE CARE NOT TO APPLY EXCESSIVE PRESSURE TO LOW-RANGE PRESSURE TRANSDUCERS. ALSO INITIATED REQUIREMENTS THAT A GAUGE PROTECTOR USED TO CHECK A TRANSDUCER UNDER TEST MUST NOT HAVE A HIGHER PSI RATING THAN THE MAXIMUM OPERATING RANGE OF THE TRANSDUCER UNDER TEST.											
INSTRUMENTATION-A/B CT-99-24-081-F FAR 68115 FACTORY YES COLVIN NO 401-6-4-78											
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER											
FAILURE MODE-OUT OF TOLERANCE. THREE OF THESE TRANSDUCERS WERE REJECTED BY GO/C RECEIVING AND INSPECTION FOR BEING OUT OF TOLERANCE. FAILURE MODE COULD NOT BE DETERMINED.											
CORRECTIVE ACTION-AF QUALITY CONTROL REQUESTED THE TRANSDUCERS BE RETURNED TO THE VENDOR. NO CORRECTIVE ACTION TAKEN.											
INSTRUMENTATION-A/B A-99-24-3078F FAR 10F FACTORY YES											
TELEMETRY SET AND TRANSDUC TAPE RECORDER											
FAILURE MODE-ERRATIC OPERATION. THE RF4 TELEMETRY CANISTER HAD A LOW DISTORTED OUTPUT. ANALYSIS SHOWED THE MAGNETIC TAPE TO BE BROKEN AT THE SPLICE.											
CORRECTIVE ACTION-NONE, DESIGN IS IN THE PROCESS OF REPLACING THE CANISTER WITH ANOTHER TYPE EMPLOYING A MORE RELIABLE TAPE RECORDER. THE UNIT DISCUSSED ABOVE IS NO LONGER BEING MANUFACTURED.											
INSTRUMENTATION-A/B SP-99-24-3080-F FAR 8500 FACTORY YES											
TELEMETRY SET AND TRANSDUC CALIBRATOR-RELAY											
FAILURE MODE-CONTAMINATION. THE IN FLIGHT CALIBRATOR GAVE A NEGATIVE 100 PERCENT CALIBRATION PULSE ON CHANNEL 5 WHEN IT SHOULD HAVE BEEN POSITIVE. FAILURE NOT CONFIRMED, HOWEVER, A NYLON SHAVING ATTACHED TO THE ROTOR OF RELAY K-3 INDICATED THAT IT WAS POSSIBLE FOR IT TO HAVE LOOSED BETWEEN THE NORMALLY OPEN CONTACTS OF THE RELAY.											
CORRECTIVE ACTION-RELAY VENDOR INSPECTION OF NYLON MACHINED PARTS HAS TIGHTENED. IN ADDITION, A NEW DESIGN ELIMINATING ORGANIC MATERIALS IN THE CONTACT AREAS, IS BEING DEVELOPED.											

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAIL'D COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-3161-F A-89-24-3161-F VOLTAGE-CONTROL OSCILLATOR	FAR 87-01868-88	981112	FACTORY	YES	BENDIX NO 1090869-11-T-A	093316
FAILURE MODE-ERRATIC OPERATION. OUTPUT VOLTAGE WAS REPORTED VARYING FROM 0 TO 0.322 VOLT. FAILURE WAS NOT CONFIRMED EXTENSIVE TESTING INDICATED FAILURE COULD HAVE BEEN ATTRIBUTED TO INCORRECT TESTING.							
CORRECTIVE ACTION-NONE SINCE THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	8P-90-24-3071-F SIGNAL CONDITIONER-WIRING	FAR 87-12390-817	1810	WTR	YES	GOC NO	093169
FAILURE MODE-OPEN (ELECTRICAL). THE SIGNAL CONDITIONER FAILED WHEN PIN A OF 3P9 WAS FOUND OPEN-CIRCUITED. THE FAILURE WAS CAUSED BY A MISSING WIRE BETWEEN T81-27 AND T81-28. THE ABSENCE OF THE WIRE WAS NOT DISCOVERED IN MANUFACTURING TESTING BECAUSE THE TEST EQUIPMENT WILL NOT SHOW SUCH AN ERROR.							
CORRECTIVE ACTION-PARAGRAPH 3.16, WAS ADDED TO EOP 330-831.2 TO CHECK THE TEST POINTS ON CONNECTOR 3J3.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-3110-F AMPLIFIER	FAR 87-01526	2630	FACTORY	YES	SPEIDEL NO 003-6008	093794
FAILURE MODE-CONTAMINATION. THE RECORDING AMPLIFIER GAVE NO OUTPUT FROM THE BIAS-ERASE OSCILLATOR. THE FAILURE WAS CAUSED BY A POOR CONNECTION OF AMPLIFIER PIN-D, ERASE OSCILLATOR FILTERED POWER. THE PIN WAS COVERED WITH POTTING COMPOUND THAT PREVENTED GOOD CONTACT.							
CORRECTIVE ACTION-EFFECTIVE 9 MARCH 1963 THE VENDOR POTS ALL AMPLIFIERS WITH MATING CONNECTORS ATTACHED, AND 100 PERCENT INSPECTION IS PERFORMED AFTER POTTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	N2-99-24-3134-F OSCILLATOR-POTENTIOMETER	FAR 87-01807-119	981111	FACTORY	YES	BENDIX NO 313133-108	
FAILURE MODE-OPEN (ELECT). THE SUBCARRIER OSCILLATOR DISPLAYED NOISE IN EXCESS OF FOUR PERCENT ON THE NOISE SCALE DURING CHECKOUT OF THE TELEMETRY PACKAGE. THE FAILURE WAS CAUSED BY THE OUTPUT ADJUSTMENT POTENTIOMETER WHICH HAD TWO BREAKS IN THE RESISTANCE WIRE. THE BREAKS WERE PROBABLY DUE TO THE WIPER ENGAGING LOOSE TURNS OF RESISTANCE WIRE.							

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CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-NONE. THE VENDOR FEELS THAT THIS IS A RANDOM FAILURE, AND THAT NO CHANGE IS REQUIRED.						003784
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A462-0104/P1-601-00-16 AND TRANSDUC SUBCARRIER OSCILLATOR	COUNTDOWN	18F 021107	11 -125	YES NO		003784
FAILURE MODE-ERRATIC OPERATION. RF2 CHANNEL 3 WAS NOTED TO BE STEPPING RANDOMLY. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM MEASUREMENT 1 280V, ROLL RESOLVER SIGNAL, WAS INVALID. VEHICLE EFFECT-COUNTDOWN DELAYED. TEN MINUTE HOLD CALLED. CORRECTIVE ACTION-DECISION MADE TO PROCEED WITH EXISTING CONDITION AS THE MEASUREMENT WAS DUPLICATED ON A COMMUTATE D CHANNEL.							001827
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A042-0112/P1-601-00-16 TELEMETRY SET AND TRANSDUC TRANSMITTER	FLIGHT	18F 021107	ETR 48	YES NO		001827
FAILURE MODE-ERRATIC OPERATION. DURING THE PERIOD OF 48.5 TO 73.5 SECONDS, INTERMITTENT NOISE BURSTS DETERIORATED THE GENERAL DATA QUALITY ON ALL CHANNELS OF RF NO. 3. THE NOISE APPARENTLY ORIGINATED FROM THE TRANSMITTER. SYSTEM EFFECT-ERRATIC OPERATION. DATA ON ALL CHANNELS DETERIORATED BY NOISE (RF NO.3). VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							001833
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	M7-49-24-310-P TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER	FAR 27-01286-33	18D-D 021103	FACTORY H-172-4	YES H-172-4		001833
FAILURE MODE-STRUCTURAL. CAUSE OF FAILURE WAS A POORLY BRAZED BOURDON TUBE ALLOWING INTERNAL PRESSURE TO BUILD UP 6 HIGHER THAN AMBIENT. CORRECTIVE ACTION-VENDOR ACTION REVISED TEST PROCEDURES TO REQUIRE A LEAK CHECK OF EACH BOURDON TUBE USING HELIUM 6 AS A MEDIUM.							001833
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-40-24-313F TELEMETRY SET AND TRANSDUC MOTOR	FAR	021101	FACTORY NO E	YES 1096485-45		001833
FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATOR MOTOR ROTATED AT A SPEED OF 8.48 TO 8.49 RPS, INSTEAD OF 8 RPS. THE F							001833

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
<p>FLUCTUATING SPEED WAS CAUSED BY CHANGES IN MOTOR ROTOR RESISTANCE, BRUSH RESISTANCE, BRUSH DUST RESISTANCE ACROSS THE COMMUTATOR SEGMENTS AND BY STICKY GOVERNOR CONTACTS BROOD BY ARCING.</p>							893791
<p>CORRECTIVE ACTION-THE TOLERANCE WAS CHANGED FROM PLUS OR MINUS 5 PERCENT TO PLUS OR MINUS 8 PERCENT.</p>							
<p>INSTRUMENTATION-A/B NZ-90-24-3140F TELEMETRY SET AND TRANSDUC OSCILLATOR-TRANSISTOR FAR 1800 WTR YES BENDIX ERS 27-18768-801 821028 NO</p>							893793
<p>FAILURE MODE-FAIL DURING OPERATION. THE TELEPAK FAILED WHEN THERE WAS A LOSS OF SIGNALS FROM SUBCARRIER 11. THE FAILURE WAS CAUSED BY THE MISMATCH OF THE TWO TRANSISTORS IN THE MULTIVIBRATOR CIRCUIT OF THE SUBCARRIER OSCILLATOR. OTHER DISCREPANCIES WERE FOUND, BUT DID NOT CONTRIBUTE TO THE FAILURE.</p>							
<p>CORRECTIVE ACTION-GOC INITIATED DESIGN CHANGES TO MOISTURE PROOF THE TELEPAK. CRITICISM AND DIFFICULTY REPORT 83-0810 WAS ISSUED TO OBTAIN A CHANGE PROVIDING FOR USE OF LOCITE TO SECURE THE SCREEN FOUND LOOSE IN THE TELEPAK.</p>							
<p>INSTRUMENTATION-A/B SP-99-24-3032-F TELEMETRY SET AND TRANSDUC OSCILLATOR-COMMUTATOR MOTOR FAR 2300 FACTORY YES BENDIX ERS 27-11341-903 821027 NO</p>							893937
<p>FAILURE MODE-OUT OF TOLERANCE. CHANNEL 15 WAS REPORTED TO HAVE ITS VOLTAGE-CONTROLLED OSCILLATOR OUT OF BAND WIDTH. CHANNEL 11 WAS REPORTED TO HAVE ITS COMMUTATOR RUNNING SLOW. THE CHANNEL 11 COMMUTATOR MOTOR HAD EXCEEDED ITS LIFE TIME GUARANTEE BY 3 HOURS.</p>							
<p>CORRECTIVE ACTION-THE OSCILLATOR WAS READJUSTED AND OPERATED SATISFACTORILY. COMMUTATOR MOTORS BY THIS VENDOR (REED AND REED) ARE TO BE REPLACED BY BENDIX MOTORS WHICH HAVE A LONGER ANTICIPATED LIFE.</p>							
<p>INSTRUMENTATION-A/B AOJ82-0070/A1-401-00-159 TELEMETRY SET AND TRANSDUC TLM CANISTER-COAX FLIGHT 1590 WTR-A-1 NO ERS 27-01397-17 821028 300.06 NO</p>							893931
<p>FAILURE MODE-OPEN/SHORT LOSS OF TELEMETRY APPARENTLY DUE TO LOSS OF CONTINUITY IN WIRING BETWEEN TELEMETRY TRANSMITTER AND ANTENNA WHEN SUSTAINER TANK WAS DESTROYED. IT WAS NOTED THAT OTHER INDEPENDENT RF SYSTEMS (PASSENGER POOL TLM AND GUIDANCE BEACONS) CONTINUED TO FUNCTION FOR SEVERAL ADDITIONAL SECONDS.</p>							
<p>SYSTEM EFFECT-LOSS OF ALL ATLAS TELEMETRY DATA.</p>							
<p>VEHICLE EFFECT-NONE. POST-RETROCKET DATA NOT RECEIVED. LOSS OF SUSTAINER TANK BY SELF-DESTRUCTION BELIEVED RESULT OF RETROCKET FIRING IMPINGEMENT.</p>							
<p>CORRECTIVE ACTION-NONE FOR TLM SYSTEM. BAPPLING TO DEFLECT RETROCKET BLAST FROM TANK.</p>							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A-99-24-3081-F 87-01398-39	FAR 87-01398-39	681028	FACTORY	YES	SERVOINCS NO	89281
FAILURE MODE-OUT OF SPECIFICATION. IT WAS REPORTED THAT THE TRANSDUCER EXHIBITED A 8 PERCENT INFORMATION BAND WIDTH VARIATION AT A FREQUENCY OF APPROXIMATELY 1.75 CPS.							
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR ERS	SP-90-24-3157F	FAR 87-12842-1	1100 681024	MTR	YES	UNITED ELECTRO NO DYNAMICS	897920
FAILURE MODE-CONTAMINATION. WHEN THE CHANNEL 14 COMMUTATOR MOTOR WAS CHECKED WITH A STROSCOPRE THE SPEED WAS FOUND TO VARY FROM D TO 5.5 RPS. THE GOVERNOR CONTACTS WERE COVERED WITH A FINE WHITE POWDER CAUSING THE CONTACTS TO STAY OPEN.							
CORRECTIVE ACTION-THE GOVERNOR CONTACTS WERE BURNISHED AND THE SPEED WAS ADJUSTED. THE MOTOR THEN OPERATED NORMALLY. VENDOR INFORMED OF FAILURE AND ASKED TO INSURE THAT RESIDUAL SALTS ARE NOT LEFT ON GOVERNOR CONTACTS. VENDOR BELIEVES CONTAMINATION IS THE RESULT OF NORMAL WEAR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-TRANSISTOR ERS	HZ-99-24-3083-F	FAR 87-12762-801	1780 681024	FACTORY	YES	BENDIX NO	891132
FAILURE MODE-ERRATIC OPERATION. THE TELEPAK FAILED WHEN IT HAD EXCESSIVE NOISE ON SUBCARRIER OSCILLATOR CHANNEL 9. THE NOISE WAS THE RESULT OF UNSTABLE FREQUENCY OUTPUT CAUSED BY GAIN MISMATCH OF THE TWO TRANSISTOR FLIP-FLOP OSCILLATOR CIRCUIT. THE TRANSISTOR THAT CAUSED THE PROBLEM WAS NOT DETERMINED.							
CORRECTIVE ACTION-NONE. THE VENDOR REVIEWED THE DISCREPANCY, BUT COULD NOT EXPLAIN THE APPARENT CHANGE IN TRANSISTOR CHARACTERISTICS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC WIRING ERS	A-99-24-3074-F	FAR 87-12373-893	10P 681023	FACTORY	YES	NO	
FAILURE MODE-SHORT (ELECT). THE TELEMETRY CANISTER FAILED WHEN THE 8-VOLT CALIBRATION VOLTAGE WAS MISSING ON CHANNEL 12. A RESISTANCE CHECK WAS MADE, WHILE THE CANISTER WAS STILL ON THE MISSILE, AND PIN C OF 10341J6. THE CALIBRATOR OUTPUT, WAS SHORTED TO GROUND. THE FAILURE WAS CONFIRMED. A WIRING ERROR HAD RESULTED IN A WIRE RUNNING FROM T81 P1 W AS1 TO T88 P1M B18, WHICH ACCOUNTED FOR THE LACK OF 8-VOLT CALIBRATION VOLTAGE.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							003051
	CORRECTIVE ACTION-NONE. THE ANALYSIS WAS CANCELLED BECAUSE OF LACK OF AUTHORIZED FUNDING.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER, INSTRUMENTATION POTENT 7-01723-11 IONOMETER	SP-98-24-3503-F FAR	1310 621023	FACTORY	YES	BOURNS NO 42013-0-50-752	001003
	FAILURE MODE-OUT OF TOLERANCE. TWO TRANSDUCERS FOR MEASUREMENT FIP HAD HIGH OUTPUT READINGS. CAUSE WAS DETERMINED TO BE DUE TO HIGH RESISTANCE READINGS OF THE POTENTIOMETERS WHICH IN TURN WERE CAUSED BY THE TRANSDUCER DRIVE LINK BALL NOT STAYING FIRMLY SEATED IN THE HIPER ARM BALL SOCKET. THE BALL SOCKET CLAMP WAS NOT CLAMPED TIGHTLY ENOUGH AROUND THE DRIVE LINK BALL.						
	CORRECTIVE ACTION-RECOMMENDED VENDOR CORRECT THE PROBLEM BY TIGHTENING THE CLAMP AROUND THE DRIVE LINK BALL TO PROVIDE A GREATER HOLDING FORCE ON THE BALL. THE VENDOR IS INSTITUTING CHANGES IN THE TRANSDUCER DESIGN USING THE BALL-ARM D-SOCKET TYPE DRIVE LINKAGE.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TELEMETRY ACCESSORY PACKAGE	A-99-24-5034-F FAR	10F 621022	FACTORY	YES	NO	002767
	FAILURE MODE-OUT OF SPECIFICATION. THE FOLLOWING DISCREPANCIES WERE REPORTED. (1) 100 PERCENT CALIBRATION WAS 0.4 VOLTS INSTEAD OF 3.0 VOLTS (2) CHANNELS 1-E, 2-11, 2-C AND 2-12 OUTPUTS WERE 10 PERCENT OF EXPECTED VALUES. (3) CHANNEL 3-11 OUTPUT WAS 75 PERCENT OF EXPECTED VALUE.						
	CORRECTIVE ACTION-NONE. FAILURES WERE NOT CONFIRMED.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER WIRE	A-99-24-5039 FAR	10F 621020	FACTORY	YES	BENDIX NO	002768
	FAILURE MODE-OPEN (ELECT). IT WAS REPORTED THAT THE 28 VOLTS NEEDED FROM PIN Y OF 1J7 WAS MISSING. THIS WAS BECAUSE THE WIRE WHICH FURNISHED THE 28 VOLTS (CONNECTOR 1J7 PIN J TO PIN F) WAS MISSING. THIS WIRE WAS OMITTED DURING MODIFICATION OF THE CANISTER.						
	CORRECTIVE ACTION-ADDITIONAL TEST PROCEDURES AFTER CANISTER MODIFICATION WILL BE INITIATED. INCLUDED IS A RING OUT OF THE PACKAGES BY INSPECTION.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTM	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	A0182-0034/PI-801-00-14	FLIGHT	14F 021019	STR-11 D.	YES NO		000100
<p>FAILURE MODE-OUT OF TOLERANCE. TELEMETRY SET 4 DISPLAYED A NOISE CONTENT OF APPROXIMATELY 10 TO 15 PERCENT FBW. CONSIDERED TO HAVE BEEN GENERATED BY THE INFLIGHT RECORDING AND TRANSMISSION SYSTEM.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. NO DATA WAS LOST BUT SYSTEMS ANALYSES WERE MORE DIFFICULT BECAUSE OF THE HIGH NOISE CONTENT.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR RESISTOR ERS	MC-99-24-3047F	FAR 27-01352-945	1300 021019		YES NO	BENDIX-PACIFIC	001030
<p>FAILURE MODE-OUT OF TOLERANCE. FREQUENCY OF THE OSCILLATOR WAS TOO HIGH. WHEN ADJUSTED IT INCREASED DURING A TEMPERATURE TEST. ONE BAD SOLDER JOINT AND TWO RESISTORS WITH HIGH TEMPERATURE COEFFICIENT WERE FOUND IN THE OSCILLATOR. IN THE FILTER PORTION OF THE OSCILLATOR, TWO COLD SOLDER JOINTS AND A BROKEN GLASS ISOLATOR WERE FOUND. FAILURE WAS ATTRIBUTED TO THE HIGH TEMPERATURE COEFFICIENT OF THE RESISTORS.</p> <p>CORRECTIVE ACTION-THE VENDOR OF THE FILTER HAS BEEN CHANGED. THE VENDOR OF THE OSCILLATOR STATED THAT THE TWO RESISTORS WHICH EXHIBIT HIGH TEMPERATURE COEFFICIENTS ARE USED FOR TEMPERATURE COMPENSATION. THE HIGH TEMPERATURE COEFFICIENT IS A NORMAL PARAMETER FOR THESE RESISTORS.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER ERS	2P-9924-3109-F	FAR 27-11541-903	621019	FACTORY	YES NO	BENDIX	003761
<p>FAILURE MODE-ERRATIC OPERATION. THE TELEMETRY PACKAGE HAD EXCESSIVE NOISE IN CHANNELS 15 AND 16, AND DISTORTION IN CHANNEL 14. THE FAILURE IS ATTRIBUTED TO THE INSTALLATION OF AN INCORRECT LIMITER FILTER IN THE PACKAGE.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	MC-99-24-3151F	FAR 7-01780-8	021019	FACTORY	YES NO	BURNS	
<p>FAILURE MODE-CONTAMINATION. TRANSDUCER WOULD NOT GIVE AN OUTPUT SIGNAL WHEN PRESSURE WAS APPLIED TO THE PRESSURE PORT OF THE TRANSDUCER.</p>							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED. HOWEVER, THE FAILURE MAY HAVE BEEN OF AN INTERMITTENT NATURE CAUSED BY CONTAMINANT PARTICLES FOUND IN THE TRANSDUCER OIL. THESE PARTICLES COULD HAVE CAUSED THE POTENTIOMETER WIPER ARM TO LIFT OFF THE MANOREL AND PRODUCE THE SPIKING.						
INSTRUMENTATION-A/B A182-0071/FC-CO-01-UD08-002 COMPOSITE-FACTORY 2500 YES TELEMETRY SET AND TRANSDUC FILTER-ELECTRICAL 30KC LIMITER FIL 621016 NO ERS						
FAILURE MODE-FAIL DURING OPERATION. DISTORTION ON CHANNEL 14 WAS EVIDENT DURING THE RSC INHIBIT FUNCTION DUE TO A F AULTY 30KC LIMITER FILTER IN THE TELEMETRY WHICH ALLOWED INTERCHANNEL MODULATION DISTORTION.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE ABORTED AND RESCHEDULED. SYSTEM AND COMPOSITE RETESTING WERE REQUIRED.						
CORRECTIVE ACTION-THE 30KC LIMITER FILTER WAS REPLACED AND THE TELEPACK REINSTALLED.						
INSTRUMENTATION-A/B MZ-90-24-3200-F 1500 WTR YES ROSEMOUNT TELEMETRY SET AND TRANSDUC TRANSDUCER. INSTRUMENTATION 7-01648-13 621016 NO 138CF ERS						
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER READ OUT OF TOLERANCE. FAILURE WAS NOT CONFIRMED. THE MOST PROBABLE CAUSE OF THE REPORTED FAILURE COULD HAVE BEEN A POOR CONNECTION IN THE ELECTRICAL CIRCUIT BETWEEN THE TRANSDUCER AND THE RECORDING INSTRUMENT. THIS WOULD TEND TO PLACE MORE RESISTANCE IN SERIES WITH THE TRANSDUCER ELEMENTS AND WOULD CAUSE THE RECORDING INSTRUMENT TO READ HIGH OR ACT AS IF THE TRANSDUCER WAS READING A HIGHER TEMPERATURE THAN IT SHOULD.						
CORRECTIVE ACTION-FIELD PERSONNEL AT ETR WERE INFORMED OF THE ANALYSIS AND REQUESTED TO CHECK ALL THE EXTERNAL CIRCUIT CONNECTORS FOR CORROSION, BENT PINS AND OTHER HIGH-RESISTANCE-CAUSING DISCREPANCIES BEFORE THEY ARE CONNECTED.						
INSTRUMENTATION-A/B A-99-24-3323-F 2010 80-FAC NO GILFILLAN TELEMETRY SET AND TRANSDUC TRANSMITTER 87-01988-3 621015 NO 100882 ERS						
FAILURE MODE-FAIL DURING OPERATION. THE UNIT EXHIBITED ZERO OUTPUT WHEN TWO WATTS OUTPUT WAS EXPECTED. THE FAILURE WAS NOT CONFIRMED. THE TRANSMITTER WAS MOST LIKELY REJECTED BECAUSE A DE-COUPLING DEVICE WAS NOT USED DURING TESTING						
CORRECTIVE ACTION-USE OF A DE-COUPLING DEVICE WHILE TESTING IS NOW REQUIRED IN A NEW E.O.P. 330.818-2 ISSUED FEB. 1						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SIZE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
1. 1963.							007000
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SWITCH, CHANGEOVER-MOTOR ERS	A-99-24-3079F A-99-24-3079F	FAR 27-01806-801	621010	FACTORY	YES KINETICS NO M-145-7		007049
FAILURE MODE-OPEN/IEC. 1) THE CHANGEOVER SWITCH WOULD NOT SWITCH FROM THE INTERNAL TO EXTERNAL POSITION. THE SWITCH OPERATED INTERMITTENTLY BECAUSE ONE OF THE CARBON BRUSHES IN THE MOTOR WAS BOUND IN ITS SLOT AND COULD NOT MAKE SATISFACTORY CONTACT WITH THE ARMATURE DUE TO A DEFORMED SPACER. THE SPACER WAS DEFORMED BY AN EXCESSIVELY THICK RUBBER-LIKE INSULATING WASHER.							
CORRECTIVE ACTION-EFFECTIVE 11 DEC. 1968 THE MOTOR ASSEMBLY PROCEDURES WERE REVISED TO TRIM EACH RUBBER INSULATING WASHER SO THAT IT WILL BE FLUSH WITH THE END-BELL, THEREBY REMOVING ANY POSSIBLE PRESSURE ON THE INSULATOR OR THE BRUSH.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-A-90-24-3332 FAR-A-90-24-3332	IAR 27-01243-7	TGF 621009	PLATTESBU RG	YES COLVIN NO 401-A-10-75		00704
FAILURE MODE-CONTAMINATION. THE TRANSDUCER WAS REJECTED FOR ERRATIC OUTPUT. CONTAMINATION ON THE RESISTANCE WINDING OF THE POTENTIOMETER CAUSED THE WIPER TO BE LIFTED OFF THE WINDING. ARCING OCCURRED, LEAVING A BURNT AREA ON THE WINDING. FIBER AND SOLDER SPLASHES WERE FOUND ON THE RESISTANCE WINDING AND ON THE INSIDE OF THE CASE.							
CORRECTIVE ACTION-IT WAS RECOMMENDED THAT THE VENDOR BE REQUESTED TO 1) IMPROVE CLEANLINESS. 2) FIND CAUSE OF THE CIRCUMFERED INSULATION ON THE WIPER ARM LEAD AND 3) INITIATE MORE STRINGENT INSPECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TAPE RECORDER/TTY ERS	A-99-24-3037-F A-99-24-3037-F	FAR 27-18/13-919	ZIF 621004	FACTORY	YES NO		001302
FAILURE MODE-OUT OF TOLERANCE. THE REPORTED DISCREPANCY WAS EXCESSIVE NOISE (UP TO 10 PERCENT OF INDICATED BANDWIDTH) ON CHANNELS 12, 13 AND 14 ON THE MAGNETIC TAPE IN THE RECORDER.							
CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-81-24-3330 FAR-81-24-3330	FAR 7-01737-8	2500 621008	FACTORY	YES SERVONIC NO D-92		
FAILURE MODE-STRUCTURAL. THE TRANSDUCER FAILED WHEN THE EXCITATION VOLTAGE INPUT LEAD CONNECTED TO PIN 8 WAS FOUND							

GENERAL DYNAMICS
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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE	SITE	PRI	VENDOR NAME
20B-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE DIF	TIME DIF	OTH	VENDOR PART NO
OPEN CIRCUITED. CAUSE OF THE FAILURE WAS OVERSTRESSING AND FRACTURE OF THE WIRE IN TENSION.						
CORRECTIVE ACTION-A MEMO WAS SENT TO FACTORY PERSONNEL REGARDING MISHANDLING OF TRANSDUCERS.						
INSTRUMENTATION-A/B	SP-99-24-3040-F	FAR	1160	FACTORY	YES	TEXAS INSTRUMENTS
TELEMETRY SET AND TRANSDUC CALIBRATOR TIMER		95-13868-823	821003		NO	MTS
ERS						
FAILURE MODE-OUT OF TOLERANCE. REPORTEDLY THE PREFLIGHT CALIBRATOR FOR CHANNELS 1, 2, 3, 12 AND 13 OPERATED FOR ONLY 12.6 SECONDS WHEN A MINIMUM OF 15 SECONDS IS REQUIRED.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B	FAR-SP-99-24-3374	FAR	1160	FACTORY	YES	LEWIS
TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER		7-01684-3	821004		NO	58836A
ERS						
FAILURE MODE-STRUCTURAL. THE TRANSDUCER FAILED DURING FINAL CHECKOUT WHEN THE ELECTRICAL RECEPTACLE SEPARATED FROM THE TRANSDUCER CASE. FAILURE WAS THE RESULT OF ABUSIVE HANDLING DURING MISILE CONSTRUCTION AND MAINTENANCE.						
CORRECTIVE ACTION-SUPERVISION WAS INFORMED OF CORRECT HANDLING METHODS FOR PARTS AND MATERIALS.						
INSTRUMENTATION-A/B	A-99-24-3199-F	FAR	21F	FACTORY	YES	BOURNS
TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION		7-01720-5	821003		NO	73311-0-35-758
ERS						
FAILURE MODE-STRUCTURAL. TRANSDUCER HAD AN OPEN CONDITION IN THE POTENTIOMETER WIPER ARM OUTPUT CIRCUIT. A BREAK IN THE WIPER ARM CIRCUIT WAS LOCATED AT THE POINT WHERE THE WIRE EXITS FROM A SHELLAC-FILLED PLASTIC FEEDTHROUGH IN THE UPPER MANDEREL. THE BREAK WAS CAUSED BY THE WIRE BEING OVERSTRESSED IN A TORSIONING MODE. THE SECTION OF THE WIRE IN THE PLASTIC TUBE WAS HELD RIGID BY THE BONDING SHELLAC WHILE THE OTHER END OF THE WIRE WAS ROTATED. THE BONDING SHELLAC IN THE PLASTIC FEEDTHROUGH WAS INDICATIVE OF POOR WORKMANSHIP AND QUALITY CONTROL.						
CORRECTIVE ACTION-SINCE THE MANUFACTURE OF THIS TRANSDUCER, THE VENDOR HAS INITIATED QUALITY CONTROL PROCEDURES AND CLEANING METHODS WHICH SHOULD ELIMINATE THIS TYPE OF FAILURE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE TIME OF DAY	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC VOLTAGE-CONTROL OSCILLATOR-WIRE ERS	A-88-24-3003F	FAR 88-01174-131	821002	FACTORY	YES	BENDIX-PACIFIC	983484
FAILURE MODE-STRUCTURAL. A 0.61 VOLT OUTPUT WAS MEASURED WHEN 0.848 PLUS OR MINUS 0.005 VOLTS IS REQUIRED. THIS WAS DUE TO AN OPEN CIRCUIT BETWEEN PIN 3 (POWER INPUT) AND THE CIRCUIT, PROBABLY CAUSED BY A BROKEN WIRE.							
CORRECTIVE ACTION-NONE. THE VENDOR WOULD NOT TAKE CORRECTIVE ACTION SINCE THEY DID NOT PERFORM THE FAILURE ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR CAPACITOR ERS	88-88-24-3042-F	FAR 87-12851-1	1370	FACTORY	YES	UNITED ELECTRO DYNAMICS	981939
FAILURE MODE-ELECTRICAL SHORT. IT WAS REPORTED THE TRANSMITTER POWER OUTPUT DROPPED TO ZERO AFTER A FEW MINUTES WAS UP. THIS WAS DUE TO THE VARICAP USED IN THE VARIABLE FREQUENCY OSCILLATOR (VFO) SHORTING TO THE CASE. THIS CAUSED A FREQUENCY SHIFT.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-RF1 CHANNEL E ERS	P2-4CO-03-215	COMPOSITE-B FACT 27-11541-695	2150	12	YES	GD/C	983382
FAILURE MODE-FAIL DURING OPERATION. THE COMMUTATOR FOR RF1 CHANNEL E STOPPED DURING THE FIRST LOOP TEST.							
SYSTEM EFFECT-EFFECT OPERATION STOPS PREMATURELY. TELEMETRY STOPPED SUPPLYING DATA ON RF1 CHANNEL E.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-THE PACKAGE WAS TAPPED LIGHTLY, COMMUTATION BEGAN, AND THIS PROBLEM DID NOT OCCUR AGAIN DURING THE TEST.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-NZ-49-24-1345	FAR 87-01886-89	1810	FACTORY	YES	SERVONIC	
FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER REPORTEDLY FAILED WHEN IT GAVE AN INTERMITTENT OUTPUT. THE NOISE OR SPIKING RESULTS FROM VIBER ARM BOUNCE CAUSED BY VIBRATION.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-THE VENDOR REDESIGNED THE TRANSDUCER, PER VCP87-01386-B-YCP-008, WHICH WAS ACCEPTED BY GD/C 83020						898788
	1.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	NZ-A9-24-4022-C M2-A9-24-4022-C	FAR 27-01386-39	1810 820927	FACTORY	YES NO	YES H 172-8	898803
FAILURE MODE-ERRATIC OPERATION. UP TO 15 PERCENT SPIKING OBSERVED.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-POWER SUPPLY ERR	A-98-24-3041-F 27-12290-613	FAR 27-12290-613	1130 820927	ETR	YES NO		898934
FAILURE MODE-OUT OF TOLERANCE. THE TELEPAK REPORTEDLY HAD LOW 115 AND 28 VOLT OUTPUTS AND THE 115 VOLT OUTPUT CONTAINED EXCESSIVE NOISE SPIKES.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERR	A-98-24-5038-F 27-12573-889	FAR 27-12573-889	1810 820927	FACTORY	YES NO	YES H 172-8	898989
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 6 SUBCARRIER OSCILLATOR REPORTEDLY SHIFTED 20 CPS AND CHANNEL 10 REPORTEDLY INDICATED EXTREME SIGNAL BREAKUP AND VARIATIONS. THE CHANNEL 10 FAILURE WAS NOT CONFIRMED. THE CHANNEL 2 SHIFT WAS PROBABLY DUE TO INSUFFICIENT WARM UP PRIOR TO ADJUSTMENT.							
CORRECTIVE ACTION-PERSONNEL WERE INSTRUCTED TO BE SURE THAT THE WARM UP PERIODS STIPULATED IN PROCEDURES ARE OBSERVED AT ALL TIMES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	NZ-A9-24-3473-F M2-A9-24-3473-F	FAR 27-01386-39	1810 820928	FACTORY	YES NO	YES H 172-8	898977
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT WITH 800 PSIG APPLIED.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3023F TELEMETRY ACCESSORY PACKAGE/RECTIP IER	FAR 27-122891-208	16E 620924	FACTORY	YES NO	093032
FAILURE MODE-OUT OF TOLERANCE. THE OUTPUT VOLTAGE FROM THE DUAL RECTIFIER ASSEMBLY WITHIN THE PACKAGE WAS REPORTED OUT OF TOLERANCE. A PROCEDURE DISCREPANCY IN EOP 330-360.2, TCA 19 RESULTED IN IMPROPER ADJUSTMENT.						
CORRECTIVE ACTION-RECTIFIER WAS CORRECTLY ADJUSTED. EOP 330-360.2, TCA 19 WAS CORRECTED TO REFLECT THE PROPER DUAL RECTIFIER ASSEMBLY ADJUSTMENT BY EOP TCA 20, DATED 620929.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	2M-A9-24-3023F TELEMETRY AUXILIARY SIGNAL CONDITIONER	FAR 27-122891-247	3500 620921	FACTORY	YES NO	093469
FAILURE MODE-OUT OF TOLERANCE. THE REPORTED DISCREPANCY WAS CHANNEL 13, CAUSING EXCESSIVE NOISE ON CHANNELS 14 AND 15.						
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3010F TELEMETRY PACKAGE/WIRE	FAR 27-12273-000	16F 620920	FACTORY	NO NO	091926
FAILURE MODE-OUT OF TOLERANCE. UNIT FAILED BY HAVING NO 28 VDC ON PIN A8 OF CONNECTOR 102 VIJ3. THIS WAS CAUSED BY A BURNT OPEN WIRE WHICH WAS DUE TO THE USE OF A FAULTY, UNAUTHORIZED, SHORTING PLUG.						
CORRECTIVE ACTION-ALL UNAUTHORIZED SHORTING PLUGS WERE REMOVED. PERSONNEL WERE INSTRUCTED NOT TO USE UNAUTHORIZED PLUGS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AOJ62-0047/P1-604-00-09 TELEMETRY COMMUNICATOR	COUNTDOWN	2F 620819		YES NO	091926
FAILURE MODE-OUT OF SPECIFICATION. RF PACKAGES NO. 1 AND NO. 2 COMMUTATORS RUNNING AT SLOW SPEEDS PRIOR TO START OF COUNTDOWN.						
SYSTEM EFFECT-OPERATION TOO LOW. RF NO. 1 AND NO. 2 COMMUTATORS RUNNING AT SLOW SPEEDS.						
VEHICLE EFFECT-COUNTDOWN DELAYED. START OF COUNTDOWN DELAYED TO REPLACE RF PACKAGES NO. 1 AND NO. 2. LEAKING FUEL VOLUME TEE ALSO REPLACED DURING DELAY.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A0382-0047/PI-804-00-08 COUNTDOWN CIRCUIT BREAKER	87 880918	11 -1260	YES NO		
FAILURE MODE-FAIL DURING OPERATION. CIRCUIT BREAKER IN TELEMETRY POWER SUPPLY NO. 2 DROPPED OUT. CAUSE UNKNOWN. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. DROP OUT OF POWER SUPPLY NO. 2 CIRCUIT BREAKER RESULTED IN LOSS OF PACKA GES. VEHICLE EFFECT-COUNTDOWN ABORTED AND RE-SCHEDULED. HOLD CALLED TO INVESTIGATE LOSS OF FILAMENT VOLTAGE. DURING HOLD MEASUREMENT WIAOP FOUND TO BE INTERMITTENT AND THAT STAGING CAMERA BATTERIES, 5-HOUR STAND ACTIVATION LIMIT, HAD E XPIRED. RESOLUTION TIME OF THESE PROBLEMS NECESSITATED ABORT OF COUNTDOWN.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-49-24-3022F TAPE RECORDER/TTT	FAR	16E 880918	FACTORY NO	YES NO	
FAILURE MODE-OUT OF TOLERANCE. THE REPORTED DISCREPANCY WAS EXCESSIVE NOISE ON ALL CHANNELS. CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NOISE LEVEL MEASURED AT 17 MV. THE MAXIMUM ALLOWABLE PER THE GO/A SPECIFIC ATION CONTROL DRAWING 27-01326 WAS 22 MV.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-3010F TELEMETRY PACKAGE/WIRE	FAR 27-12573-888	16F 880918	FACTORY NO	NO BENDIX	
FAILURE MODE-OUT OF TOLERANCE. UNIT FAILED BY HAVING NO OUTPUT EXCEPT ON CHANNELS 3 AND 4. THIS WAS CAUSED BY A BUR NT OPEN WIRE WHICH WAS DUE TO THE USE OF A FAULTY, UNAUTHORIZED, SHORTING PLUS.						
CORRECTIVE ACTION-ALL UNAUTHORIZED SHORTING PLUGS WERE REMOVED. PERSONNEL WERE INSTRUCTED NOT TO USE UNAUTHORIZED P LUGS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-3080-F POWER SUPPLY	FAR 27-01873-3	880917	FACTORY NO	YES BENDIX	
FAILURE MODE-OUT OF SPECIFICATION. THE PLATE MONITOR VOTAGE READ 1.308 VOLTS AT 100 DEGREES F WHEN IT SHOULD HAVE A						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
EAD BETWEEN 1.116 AND 1.864 VOLTS. THIS WAS DUE TO THE IMPROPER INSTALLATION OF A HIGH TEMPERATURE COEFFICIENT RESISTOR DURING MANUFACTURE.						
CORRECTIVE ACTION-THE VENDOR HAS REVISED THE SYSTEM FOR RELEASING COMPONENTS TO THE ASSEMBLY AREA TO PRECLUDE ERROR OF THIS TYPE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER HARNESS ERR	SP-AS-24-3038-F	FAR 88-14306-801	118D 620917	FACTORY	YES NO	602608
FAILURE MODE-ELECTRICAL OPEN. WIRE T804N22 WAS FOUND TO HAVE AN OPEN CIRCUIT BETWEEN CONNECTORS J 3185 PIN J AND P3 020 PIN B. THE CONNECTION BETWEEN PIN J OF CONNECTOR J3185 AND WIRE T804N22 WAS FOUND TO BE FAULTY AS A RESULT OF IMPROPER SOLDERING TECHNIQUE. THE POOR SOLDERING WAS PERFORMED WHEN THE CABLE WAS REMOVED BECAUSE OF A DESIGN CHANGE.						
CORRECTIVE ACTION-REWORK OF INDIVIDUAL WIRES IN POTTED PLUGS IS PROHIBITED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TLM CANISTER ERR	PI-8CO-02-08	COMPOSITE-B FACT	RF 620910	ETR-11	YES NO	602610
FAILURE MODE-FAIL DURING OPERATION. NEGATIVE GATE LEVEL ON RF3 CHANNEL 11 WAS LOST. COMMUTATOR AND POWER SUPPLY FOR THIS DATA WAS LOCATED IN RF 1 PACKAGE AND FAILURE WAS IN THIS PACKAGE.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. RECEIVED IMPROPER DATA SIGNALS DUE TO LOSS OF RF 3 CHANNEL 11 NEGATIVE GATE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-REPLACED RF 1 PACKAGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER PRESSURE TRANSDUCER ERR	MC-98-24-3478-F	FAR 7-01720-5	113D 620910	AMR	YES NO	YES NO
FAILURE MODE-CONTAMINATION. PRESSURE PORT OBSERVED TO HAVE A RUST COLORED CONTAMINATION COATING ON ITS BORE. CONTAMINATION DUE TO RUSTING OR CORROSION OF STAINLESS STEEL PRESSURE PASSAGES. CORROSION DUE TO MOISTURE ATTACK ON THE UNSTABILIZED STAINLESS STEEL AIDED BY WEAKENING OF CORROSION RESISTIVITY. THIS WAS DUE TO CARBIDE PRECIPITATION IN THE STEEL AND THE POSSIBLE PRESENCE OF BRAZING FLUX.						
CORRECTIVE ACTION-IT WAS SUGGESTED THE VENDOR USE A STABILIZED TYPE 301 OR 304 STAINLESS STEEL AND ALSO TO CHECK BR						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
ATING PROCEDURE TO INSURE FLUX IS CLEARED FROM UNIT AFTER BRAZING AND THAT NO OTHER CORROSION PROMOTING STEPS ARE PERFORMED.						
INSTRUMENTATION-A/B CT-A9-24-048-C FAR 1980 FACTORY NO FIFTH DIMENSION 020811						
TELEMETRY SET AND TRANSDUC COMMUTATOR 87-03187-8 020810 NO N						
FAILURE MODE-OUT OF TOLERANCE. REPORTED LOSS OF SYNCHRONIZATION.						
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS CANCELED SINCE TELEMETRY ENGINEERS FOUND THE REPORTED FAILURE CAUSED BY MISINTERPRETING TEST PROCEDURE.						
INSTRUMENTATION-A/B A-98-24-3024-F FAR 020808 ETR YES GILFILLAN 020705						
TELEMETRY SET AND TRANSDUC TRANSMITTER 87-01823-8 NO 100801-2-5						
FAILURE MODE-OUT OF TOLERANCE. UNIT FAILED WHEN THE FREQUENCY WAS FOUND TO BE BELOW THE ALLOWABLE LOWER LIMIT BY 6 KC. THE FAILURE WAS CONFIRMED. THE UNSTABLE OUTPUT FREQUENCY WAS AFFECTED BY TEMPERATURE.						
CORRECTIVE ACTION-NONE. THE ANALYSIS WAS CANCELLED BECAUSE OF LACK OF AUTHORIZED FUNDING.						
INSTRUMENTATION-A/B NZ-00-24-3028F FAR 1990 FACTORY YES BENDIX 020831						
TELEMETRY SET AND TRANSDUC TRANSMITTER-AMPLIFIER 87-01337 020808 NO						
FAILURE MODE-ERRATIC OPERATION. FAILURE WAS MARKED BY INTERMITTENT LOW OUTPUT. THIS WAS DUE TO IMPROPER TUNING OF THE DRIVER AMPLIFIER OUTPUT CIRCUIT.						
CORRECTIVE ACTION-AS NO EVIDENCE WAS OBTAINABLE AS TO WHEN AND WHERE THE TRANSMITTER AMPLIFIER CIRCUIT BECAME DETUNED. NO CORRECTIVE ACTION COULD BE RECOMMENDED.						
INSTRUMENTATION-A/B A-98-24-3078F FAR 020808 ETR YES GILFILLAN						
TELEMETRY SET AND TRANSDUC TRANSMITTER 87-01828-1 NO 100801-2-1						
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE TELEMETRY TRANSMITTER FAILED WHEN THE CARRIER FREQUENCY DID NOT RESPOND TO A MODULATED SIGNAL. THE TRANSMITTER OPERATED SATISFACTORILY DURING FAILURE ANALYSIS.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE. SINCE THE FAILURE COULD NOT BE VERIFIED.						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC COMBINATOR MOTOR						
ERS	MS-28-24-3048-7	VAR	820808	FACTORY	YES	GENERAL DEVICE
		88-01188-9			NO	8
FAILURE MODE-SHORT (ELECT). TESTS SHOWED THE NEGATIVE GATE SEGMENTS OF THE COMMUTATOR TO BE SHORTED TO THE SIGNAL & SEGMENTS. THIS WAS DUE TO THE ROTOR BRUSHES SLIDING OFF THE CHANNEL SEGMENTS AND RIDING BETWEEN TWO CHANNELS. THE BRUSHES WERE BENT AND MADE CONTACT WITH TWO SEGMENTS. THE END PLAY IN THE MOTOR ALLOWED THE BRUSHES TO SLIDE OFF THE SEGMENTS. THIS END PLAY WAS DUE TO THE ABSENCE OF A LOCK RING ON THE GEAR TRAIN SHAFT.						
CORRECTIVE ACTION-INCREASED INSPECTION AND MANUFACTURING ATTENTION TO ROTOR SHAFT PLAY AND RETAINING RING BY THE VENDOR.						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC TRANSMITTER-RF 4 TLM PACKAGE						
ERS	PI-800-01-08	COMPOSITE-B FACT	8F	ETR	YES	
		820907			NO	
FAILURE MODE-FAIL DURING OPERATION. MODULATOR IN RF 4 PACKAGE FAILED DURING TEST.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. DATA TRANSMISSION CEASED WHEN DEVIATION AND MODULATION WAS LOST ON RF 4 DUE TO FAILED MODULATOR.						
VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED.						
CORRECTIVE ACTION-REMOVE RF 4 PACKAGE AND SEND TO LAB FOR TESTS. INSTALL ANOTHER CANISTER.						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC OSCILLATOR/MIRING						
ERS	A-98-24-1038	FAR	1160	FACTORY	YES	BENDIX PACIFIC
		27-01352-145	820907		NO	
FAILURE MODE-STRUCTURAL. THE OSCILLATOR REPORTEDLY SHIFTED FREQUENCY 40 PERCENT. THIS FREQUENCY SHIFT WAS DUE TO THE BEE BROKEN WIRES WITHIN THE OSCILLATOR.						
CORRECTIVE ACTION-THE VENDOR IMPROVED WORKMANSHIP AND INSPECTION TECHNIQUES.						
INSTRUMENTATION-A/B						
TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER/O TO 3000 PSIA 27-01368-38						
ERS	8P-49-24-2038F	FAR	1810	FACTORY	YES	SERVOONICS
			820906		NO	
FAILURE MODE-OPEN (ELECT). THE TRANSDUCER REPORTEDLY FAILED WHEN AN AMBIENT READING COULD NOT BE OBTAINED.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							003033
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-24-293F	PAR	020903	FACTORY	YES		001486
	SP-98-24-293F TELEMETRY SET AND TRANSDUC ERS	27-11408-039			NO		
FAILURE MODE-STRUCTURAL. OPEN CIRCUITS WERE FOUND BETWEEN PIN M OF 4P7 AND PIN LOWER CASE M OF 303U3P4 AND BETWEEN PIN B OF 4P7 AND PIN LOWER CASE P OF 303U1P1. THESE WERE DUE TO BROKEN RESISTORS IN TWO PERMANENT SPLICED LOCATED AT STATION 081 QUAD 4.							
CORRECTIVE ACTION-MANUFACTURING SPECIFICATION (MS) 28.43A WAS CHANGED TO PROHIBIT SPLICED IN AREAS THAT ARE SUBJECT TO MECHANICAL STRAIN WHEN INSTALLED. A SURVEY WAS CONDUCTED TO INSPECT ALL MISSILES FOR SPLICED IN AREAS WHERE MISSILES ARE SUBJECTED TO MECHANICAL STRAIN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4012F	PAR	020903	FACTORY	YES	BENDIX PACIFIC	001073
	SP-99-24-4012F TELEMETRY SET AND TRANSDUC ERS	27-01488-001			NO	1041082-4-2	
FAILURE MODE-DRIFT. OSCILLATOR FAILED IN THE FACTORY WHEN THE FREQUENCY OF THE OSCILLATOR WAS REPORTED TO BE DRIFTING. FAILURE WAS CAUSED BY AN UNSTABLE MODULATOR TUBE, TYPE 6111.							
CORRECTIVE ACTION-CONVAIR INITIATED CHANGE TO REPLACE THE HOUND BENDIX TELEMETRY CANNISTER WITH THE NEW LIGHTWEIGHT BENDIX TELEMETRY PACKAGE. NEW PACKAGE WILL USE A MORE RELIABLE SOLID STATE OSCILLATOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-24-3100F	PAR	020904	ETR	YES	STATNAM	003078
	SP-98-24-3100F TELEMETRY SET AND TRANSDUC ERS	27-01237-1			NO	AJ43A-3-350	
FAILURE MODE-OPEN (ELECT). THE FAILURE WAS CAUSED BY BREAKAGE OF THE STRAIN-GAGE FILAMENT WIRE BETWEEN PINS 3 AND 4. UNIT HAD BEEN SCRAPED BY A SHARP OBJECT DURING MANUFACTURE.							
CORRECTIVE ACTION-VENDOR REQUESTED TO IMPROVE QUALITY CONTROL ON THIS ITEM AND 90/C INSPECTION REQUIRED TO INTENSIFY ACCEPTANCE INSPECTION.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	H6-98-24-3018F H6-98-24-3018F SUBCARRIER OSCILLATOR-WIRE	FAR 27-01332-928	620830	ETR	YES	BENDIX NO	092600
FAILURE MODE-ERRATIC OPERATION. THE INTERMITTENT OUTPUT WAS DUE TO A LOOSE WIRE WHICH WAS HELD IN PLACE WITH POTTIN & COMPOUND. THIS FAILURE COULD ALSO HAVE BEEN CONTRIBUTED TO BY A FILM COATING ON THE CONNECTOR PINS.							
CORRECTIVE ACTION-THE VENDOR SET UP A SEPARATE AREA FOR POTTING AND REWORK OPERATIONS. NO CORRECTIVE ACTION FOR CON NECTOR FILM COATING SINCE OCCURRENCE OF DISCREPANCY IS UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3018F TELEMETRY SET AND TRANSDUC ERS	FAR 27-11758-5	1470 620830	FACTORY	YES	GOA/BENDIX NO PTIN-8-4 P11/20 11	092661
FAILURE MODE-OPEN (ELECTRICAL) A BREAK WAS DISCOVERED BETWEEN JACK 2J2 AND JUNCTION JUELL. FUNCTIONAL TESTING WAS N OT NECESSARY AS BREAK WAS VISIBLE AND DUE TO POOR INSTALLATION OR CARELESS HANDLING.							
CORRECTIVE ACTION-UNIT WAS PLACED ON THE REPETITIVE DISCREPANCY LIST LOG 2381 AREA A STATION 11. THIS BRING'S PROBLE M TO THE ATTENTION OF MFG PERSONNEL ALERTING FOR PROPER HANDLING AND INSTALLATION OF ASSEMBLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	H6-98-24-3018F SUBCARRIER OSCILLATOR	FAR 27-01332-928	620830	ETR	YES	BENDIX NO 1089049-13AA	091235
FAILURE MODE-CONTAMINATION. DURING TESTS IN TLM LAB AT SITE, UNIT PRODUCED AN INTERMITTENT OUTPUT. FAILURE WAS CONF IRMED DURING VIBRATION. FINDING WAS CONFIRMED DURING FREQUENCY ADJUSTMENT POTENTIOMETER TO THE TERMINAL BOARD, ALSO FILM COATING ON CONNECTING PINS MAY HAVE CONTRIBUTED TO THE FAILURE.							
CORRECTIVE ACTION-PER VENDORS LETTER FEB. 9, 1965, A SEPARATE AREA WAS SET UP FOR POTTING AND REWORK OPERATIONS AND INSPECTION AND FACTORY PERSONNEL WERE CAUTIONED OF WORKMANSHIP.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-24-3080F COMMUTATOR-MOTOR	FAR	620827	ETR-M3	YES	BENDIX NO 1089463-38	
FAILURE MODE-FAIL DURING OPERATION. THE 2.5 RPS MOTOR FAILED DURING A SYSTEM TEST. IT FAILED BECAUSE OF A COLD-SOLD ER JOINT AT THE JUNCTION OF THE BRUSH AND THE INPUT POWER LEAD. THE PRIMARY CAUSE OF FAILURE IS DUE TO POOR MANUFACT URING TECHNIQUES AND OPERATING PROCEDURES.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-THE VENDOR STATES THAT EMPHASIS HAS BEEN PLACED ON THEIR PRE-SEAL INSPECTION OF THE UNIT, AND THAT STRICT SURVEILLANCE WILL PREVAIL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MIRING ERS	A-48-21-284F	FAR 27-12271-903	141 623226	FACTORY	YES	BENDIX NO
FAILURE MODE-SHORT ELECT. CAUSED BY WIRE SHIELD TOUCHING TERMINAL 8-16 ON 5 RPS COMMUTATOR CAUSING SHORT CIRCUIT.						
CORRECTIVE ACTION-EFFECTIVE WITH 3/M 143. VENDOR P/N 1050292 5 RPS COMMUTATOR. BENDIX-PACIFIC CORPORATION, INITIATED A BROOCHSTITCH TIE APPLIED TO KEEP WIRE BUNDLES FLAT TO ELIMINATE POSSIBILITY OF PINCHING THEM WHEN ASSEMBLY IS CLOSED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	AAS2-0081/P2-402-00-175	COUNTDOWN 27-11941-879	179D 620826	12 -8760	YES	BENDIX NO
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. CHANNEL 11 COMMUTATION DID NOT OCCUR WHEN TELEMETRY WAS TURNED ON.						
SYSTEM EFFECT-OPERATION DOES NOT START. CHANNEL 11 COMMUTATED SIGNAL WAS NOT OBTAINED.						
CORRECTIVE ACTION-TELEMETRY CALIBRATOR WAS REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	A-48-24-3087F	FAR 27-12792-1	620824	12	YES	GULTON NO KA-1008F
FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER AND AMPLIFIER MATCHED SET FAILED DURING RUNNING OF PROCEDURE 27-9356 T-BASIC WHEN A 60-CYCLE OSCILLATION WAS DETECTED IN THE SET. DUE TO AN ERROR IN TESTING, RESULTING IN THE APPLICATION OF AN OVERVOLTAGE, THE AMPLIFIER SUSTAINED DAMAGE AND COULD NOT BE REPAIRED TO FUNCTION PROPERLY						
CORRECTIVE ACTION-NONE. THE COMPONENT WAS DAMAGED DURING FAILURE ALTAIS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS	A-48-24-3030-F	FAR	815D 320824	FACTORY	YES	BENDIX NO
FAILURE MODE-STRUCTURAL. THE SPEED OF THE COMMUTATOR WAS EXCESSIVE. THE EXCESSIVE SPEED WAS DUE TO WELDED CENTRIFUGAL						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	AL SWITCH CONTACTS IN THE MOTOR CAUSED BY ENRITLEMENT OF THE SPRING MATERIAL AND CONTAMINATION OF CONTACT POINTS BY PARTICLES WORN FROM THE MOTOR BRUSHES. THE MOTOR BRUSH WEAR WAS EXCESSIVE.						091360
	CORRECTIVE ACTION-THE VENDOR CHANGED THE SPRING MATERIAL TO PREVENT ENRITLEMENT. THE EXCESSIVE BRUSH WEAR WAS DUE TO USE OF NON-CONFORMING BRUSH MATERIAL. THIS MATERIAL WAS REMOVED FROM STOCK AND CORRECTIVE ACTION TAKEN TO PREVENT RECURRENCE.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC HARNESS ERS	BP-59-24-891P	FAR 87-11408-933	1480 620824	FACTORY NO	YES	091365
	FAILURE MODE-STRUCTURAL. NO CONTINUITY BETWEEN PIN P OF PLUG 4PT AND WIRE T4167A22. THE WIRE HAD BEEN BROKEN IN TEN BION APPARENTLY DUE TO FLEXING.						
	CORRECTIVE ACTION-SHOP PERSONNEL WERE REINSTRUCTED TO COMPLY WITH MANUFACTURING PROCESS SPECIFICATION (MPS) 21.15 A NO OTHER APPLICABLE DOCUMENTS.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TUN CANISTER ERS	ETR P2-4CO-0	COMPOSITE-B FACT 87-11541-879	1790 620822	ETR-12 NO	YES SENDIX	091735
	FAILURE MODE-ERRATIC OPERATION. DURING THE TEST A VARYING TELEMETRY SIGNAL STRENGTH WAS OBSERVED FOR RF1.						
	SYSTEM EFFECT-ERRATIC OPERATION. RF1 HAD A VARYING SIGNAL STRENGTH.						
	VEHICLE EFFECT-COMPOSITE P2-SCHEDULED. TEST WAS RE-RUN AS A RESULT OF THIS PROBLEM AND AN ELECTRICAL POWER PROBLEM.						
	CORRECTIVE ACTION-THE TELEMETRY PACKAGE WAS REPLACED.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	ETR LOCAL REPORT/P2-4CO-04-179	COMPOSITE-B FACT 87-11541-881	1790 620822	12 NO	YES 60/C	091736
	FAILURE MODE-DRIFT RF1 CHANNEL IS SHIFTED OUT OF BAND ON THE LOW FREQUENCY SIDE.						
	SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
	VEHICLE EFFECT-NONE.						
	CORRECTIVE ACTION-UNKNOWN.						

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SYSTEM	TEST/REPORT NUMBER	VEHICLE	DATE	DIP	TIME	DIP	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE	DIP	TIME	DIP	OTH	VENDOR PART NO
INSTRUMENTATION-A/B	8P-99-24-3014F	1480	1480	FACTORY	YES	NO	YES	BORG-WARNER
TELEMETRY SET AND TRANSDUC ACCELEROMETER	7-01413-3	820821	820821	FACTORY	YES	NO	YES	9447B
ERS								
<p>FAILURE MODE-CONTAMINATION. THE UNIT HAD AN OUTPUT VOLTAGE OF LESS THAN 0.1 VOLT. THE REQUIRED OUTPUT IS 1.12 VOLTS. THE OPEN STATIC WIRE CAUSED THE UNIT TO MALFUNCTION. THE OPEN STATIC WIRE WAS THE RESULT OF CORROSIVE ACTION. SINCE NO LEAKS WERE DETECTED, THE CORROSION WAS DUE TO EITHER IMPROPER CLEANING PRIOR TO ASSEMBLY OR TO A LEAK AFTER ASSEMBLY THAT CORRODED BHUT.</p>								
<p>CORRECTIVE ACTION-THE VENDOR TOOK THE FOLLOWING CORRECTIVE ACTION TO PREVENT CONTAMINATION OF THE ACCELEROMETER MEASUREMENTS: 1. STRICTER CONTROL OF ALL PHASES OF SOLDERING, SPOT WELDING, AND SEALING. 2. ELIMINATION OF ACID FLUX IN SOLDERING OPERATIONS. 3. 100 PERCENT LEAK TEST. 4. MICROSCOPIC EXAMINATION OF WIRE STRINGING AND STATIC WIRE BEFORE FINAL ASSEMBLY.</p>								
INSTRUMENTATION-A/B	8P-99-24-3014F	2150	2150	FACTORY	YES	NO	YES	REED AND REESE
TELEMETRY SET AND TRANSDUC COMMUNICATOR		820820	820820	FACTORY	YES	NO	YES	1096483-48
ERS								
<p>FAILURE MODE-ERRATIC OPERATION. FACTORY TESTING REPORTED UNIT HAD INTERMITTENTLY CAUSING FAILURE OF TELEPAR. FAILURE COULD NOT BE CONFIRMED DURING 6 HOURS OF CONTINUOUS TESTING.</p>								
<p>CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.</p>								
INSTRUMENTATION-A/B	8P-99-24-3014F	2150	2150	FACTORY	YES	NO	YES	REED AND REESE
TELEMETRY SET AND TRANSDUC SRPS COMMUNICATOR DC MOTOR		820820	820820	FACTORY	YES	NO	YES	1096483-48
ERS								
<p>FAILURE MODE-ERRATIC OPERATION. THE MOTOR REPORTEDLY HAD INTERMITTENTLY CAUSING FAILURE OF TELEPAR UNIT.</p>								
<p>CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.</p>								
INSTRUMENTATION-A/B	8A-99-24-3013F	2150	2150	FACTORY	YES	NO	YES	REED AND REESE
TELEMETRY SET AND TRANSDUC SRPS COMMUNICATOR DC MOTOR		820820	820820	FACTORY	YES	NO	YES	1096483-48
ERS								
<p>FAILURE MODE-ERRATIC OPERATION. THE MOTOR REPORTEDLY HAD INTERMITTENTLY CAUSING FAILURE OF TELEPAR UNIT.</p>								
<p>CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.</p>								

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-A-9N-24-3313 FAR-A-9N-24-3313	FAR 27-01243-7	46F 920619 6	SCHELLIN YES BOURN	NO	42011-0-100-75	999703
FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER FAILED WHEN IT GAVE VARYING READINGS. THE VARYING READINGS WERE CAUSED BY THE DRIVELINE BALL BLIPPING OUT OF THE SOCKET AND BEING HELD IN THE WRONG POSITION BY THE CLAMP.							
CORRECTIVE ACTION-THE VENDOR INSTITUTED CHANGES IN DESIGN AND INCORPORATED CHANGES ON ALL BALL-AND SOCKET TYPE TRANSDUCERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	NZ-A9-24-3043-F FAR	27-01396-39	180D 620816	FACTORY YLS SERVONICS	NO		992901
FAILURE MODE-OUT OF TOLERANCE. SIX TRANSDUCERS FAILED BECAUSE OF EXCESSIVE SPIKING. LOW WIPER ARM TENSION AND EXCESS MASS AT THE TIP CAUSED RESONANCE AT CERTAIN FREQUENCIES. THIS CAUSED ERRATIC AND SPURIOUS OUTPUT VOLTAGES.							
CORRECTIVE ACTION-ENGINEERING REQUESTED THE VENDOR TO REDESIGN THE TRANSDUCER. THE VENDOR COMPLETED DESIGN EVALUATION AND WILL SUBMIT A VENDOR CHANGE PROPOSAL FOR ENGINEERING APPROVAL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	SP-A9-24-302F FAR	27-18798-801	180D 820819	YES NO			991363
FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATOR SPEEDS REPORTEDLY EXCEEDED THE ACCEPTABLE TOLERANCES DURING SYSTEM TESTING.							
CORRECTIVE ACTION-NONE. THE COMMUTATOR SPEEDS WERE ALLOWABLE PER MEMO 349-3-82-150 DATED 18 AUGUST 1962 WHICH CHANGES THE ACCEPTABLE COMMUTATOR SPEEDS FROM NOMINAL PLUS OR MINUS 5 PCT TO NOMINAL PLUS 5 PCT MINUS 10 PCT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER ERS	SP-30-24-3049-F FAR	7-01413-3	620218	WTR-A1	YES BORG-WARNER NO SP478		
FAILURE MODE-OUT OF TOLERANCE. THE UNIT FAILED WHEN ITS OUTPUT VOLTAGE WAS TOO HIGH. THE FAILURE WAS MOST LIKELY DUE TO AGING AND BURN-IN.							
CORRECTIVE ACTION-EFFECTIVE 28 NOVEMBER 1966, ALL NEW ACCELEROMETERS PRODUCED BY BORG-WARNER WILL BE OPERATED A MIN							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	OIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INUM OF FIFTEEN HOURS BEFORE CALIBRATION IN THE VENDORS FACTORY IN ORDER TO MINIMIZE DRIFTING DUE TO AGING AND BURN-IN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-TRANSISTOR ERS	A-98-84-3044-F PAR 27-01307-8	620809	ETR	ETR	YES NO	FIFTH DIMENSIO NO N
FAILURE MODE-FAIL DURING OPERATION. THE UNIT FAILED TO OPERATE DURING CHECKOUT. THE FAILURE WAS DUE TO A TRANSISTOR THAT HAD AN OPEN BASE DUE TO OVERCURRENT. THE CAUSE OF THE OVERCURRENT WAS NOT DETERMINED. THERE WERE ALSO WIRE STRANDS AND SMALL QUANTITIES OF SOLDER INSIDE THE UNIT IN THE AREA OF THE PINS.						
CORRECTIVE ACTION-FIFTH DIMENSION INFORMED GOC THAT THEIR QUALITY-CONTROL DEPT. IS NOW MORE FULLY DEVELOPED AND FORM ALIZED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SWITCH ERS	P1-SCO-03-07 COMPOSITE-B FACT	TF 620807	ETR-11	YES YES		
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE SWITCHING UNIT FOR THE STAGING STUDIES INSTRUMENTATION DID NOT FUNCTION PROPERLY.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. THE SWITCHING UNIT FOR THE STAGING STUDIES INSTRUMENTATION DID NOT FUNCTION PROPERLY. THEREFORE, THE INSTRUMENTATION SYSTEM DID NOT PROVIDE THE PROPER DATA.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-CHANGED SWITCH BUT PROBLEM NOT CORRECTED. NO OTHER INFORMATION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TELEMETRY SWITCH UNIT RELAY ERS	AAS2-UCT1/P1-SCO-0R-07 COMPOSITE-B FACT	TF 620804	11	YES NO		
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. TELEMETRY SWITCH UNIT FAILED TO OPERATE BECAUSE OF BURNED RELAY.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. COMMUTATORS, WHICH HAD BEEN RUNNING ON EXTERNAL POWER, STOPPED.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-RF PACKAGE REMOVED AND REPLACED. CORRECTIVE ACTION CM PACKAGE CONSISTED OF REPLACING SWITCH UNIT.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIV DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	SP-A9-24-3004-F ACCELEROMETER TRANSDUCER	FAR 7-01418-B	131D 080730	FACTORY	YES B.J. NO CB	ELECTRONIC
FAILURE MODE-CONTAMINATION. THE UNIT FAILED WHEN IT HAD NO OUTPUT. AN OPEN STATIC WIRE CAUSED LOSS OF ELECTRICAL OUTPUT. THE STATIC WIRE OPENED BECAUSE OF CORROSIVE ACTION. A POOR SOLDER SEAL ALLOWED MOISTURE TO ENTER THE ACCELEROMETER HEAD.						
CORRECTIVE ACTION-EFFECTIVE OCTOBER 1962. THE VENDOR ABANDONED THE USE OF ACID-CORE SOLDER AND BEGAN A 100 PERCENT HELIUM LEAK CHECK OF THE ACCELEROMETERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	AK62-00327FC-4CO-D1D-160 COMMUNICATOR	COMPOSITE-FACTORY 87-18762-801	180D 020727		YES NO	
FAILURE MODE-OUT OF TOLERANCE. COMMUNICATOR SPEEDS FOR CHANNELS 13, A AND C WERE BELOW THE MINIMUM REQUIRED.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NONE. TELEMETRY SYSTEM IRREGULARITIES WAIVED BY THE PROCURING ACTIVITY TO EXPEDITE SHIPMENT AND WAS CONNECTED AT THE LAUNCH SITE.						
CORRECTIVE ACTION-REPLACED TELEFAR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	15-A9-24-3003-F PRESSURE TRANSDUCER	FAR 7-01731-B	113D 080727	FACTORY		BOURNS
FAILURE MODE-OPEN (SELECT). THE FAILURE REPORTED ERRATIC OUTPUTS, AND WAS DUE TO AN INTERMITTENTLY OPEN RESISTANCE WINDING. THE OPEN APPEARED TO BE DUE TO EXCESSIVE CURRENT THROUGH THE RESISTANCE ELEMENT.						
CORRECTIVE ACTION-PERSONNEL WERE INFORMED OF THE CAUSE OF THE FAILURE AND WERE INSTRUCTED NOT TO USE EQUIPMENT SUCH AS SIMPSON TYPE OHM METERS WHICH COULD CAUSE EXCESSIVE ELEMENT CURRENT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	HC-A9-24-281-F PRESSURE TRANSDUCER	FAR 7-01780-B	113D 080727	FACTORY		SERVONIC
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER REPORTEDLY INDICATED AN OSCILLATION AT A RATE OF 0.8 TO 1.0 CPS.						

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CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							092908
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	A-90-24-3001F ADD-24-3001F	FAR 27-18842-801	124D 620724	WTR	NO	UNITED ELECTRO DYNAMIC 14264-6	090489
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT COULD BE OBTAINED FROM COMMUTATOR SEGMENT 4 ON SUBCARRIER CHANNEL 14. FAILURE WAS NOT CONFIRMED BY FAILURE ANALYSIS TESTS.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONVERTER ERS	A-90-24-3001F	FAR 27-18842-801	124D 620724	WTR	YES	UNITED ELECTRO DYNAMIC	091927
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. REPORTEDLY NO READING COULD BE OBTAINED FROM THE TEST POINT CONNECTED TO COMMUTATOR SEGMENT 4 ON SUBCARRIER CHANNEL 14.							
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC RELAY ERS	A-99-24-3048-F	FAR 86-73006-001	620723	FACTORY	YES	C.P. CLARE NO 989669	093634
FAILURE MODE-FAIL DURING OPERATION. TWO RELAYS FAILED WHEN THE CONTACTS CLOSED INTERNALLY DURING A VIBRATION TEST. THE FAILURES WERE CAUSED BY EXCESSIVE CURRENT GOING THROUGH THE RELAY CONTACTS. THE REASON FOR APPLICATION OF EXCESSIVE CURRENT WAS NOT FOUND.							
CORRECTIVE ACTION-NONE, SINCE THE CAUSE OF THE RELAY FAILURES WAS NOT FOUND.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	A162-0030/FC-4CO-08-113	COMPOSITE-FACTORY	113D 620722		YES NO		
FAILURE MODE-ERRATIC OPERATION - DISPLACEMENT GYRO MEASUREMENTS ON CHANNEL 2 SEGMENTS 39, 35 AND 37. INDICATED DISTORTION AND UNEXPECTED AMPLITUDE VARIATIONS DURING COMPOSITE TESTING. THIS CONDITION IS CAUSED BY THE HIGH INPUT IMPEDANCE OF THE DEMODULATORS. COMMUTATOR SHORTING TIME, AND THE NEGATIVE GATE ISOLATION RESISTANCE. THIS IS COMMON TO ALL LIGHT WEIGHT MERCURY TELEPARKS.							
SYSTEM EFFECT-ERRATIC OPERATION. OUTPUT MEASUREMENTS DISTORTED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-NONE.							999799
CORRECTIVE ACTION-ECF YC92 INITIATED WHICH INCLUDES A DESIGN CHANGE TO REMEDY THIS CONDITION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-49-24-3408F A-49-24-3408F TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	FAR 27-01889-01	620722	FACTORY	YES	SEMOIX-PACIFIC NO	999461
FAILURE MODE-ERRATIC OPERATION. THE OUTPUT SIGNAL BECAME ERRATIC. THE FAILURE WAS NOT CONFIRMED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC VOLTAGE CONTROL OSCILLATOR ERS	A-49-24-3021F A-49-24-3021F TELEMETRY SET AND TRANSDUC VOLTAGE CONTROL OSCILLATOR ERS	FAR 27-01889-03	620720	FACTORY	YES	SEMOIX-PACIFIC NO	999778
FAILURE MODE-OUT OF TOLERANCE-UNIT REPORTEDLY HAD UP TO 7 PERCENT NOISE DURING VIBRATION TESTING.							
CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED IN THAT NO NOISE WAS MEASURED. HOWEVER, FREQUENCY DRIFT WAS EXCESSIVE DUE TO DRIFT IN TUBE V1 (MAYTHEON 9222). NO CORRECTIVE ACTION WAS REQUIRED AS BOTH THE TUBE AND THE UNIT WERE OVER 2 YEARS OLD.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-49-24-3066F A-49-24-3066F TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	FAR 7-01489-027	620720	FACTORY	YES	SEMOIX-PACIFIC NO 1030702-13K	999855
FAILURE MODE-ERRATIC OPERATION. OSCILLATOR OUTPUT WAS NON-LINEAR ON THE HIGH FREQUENCY SIDE. THE FAILURE WAS DUE TO NORMAL AGING OF THE COMPONENTS USED. (TUBES AND RESISTORS).							
CORRECTIVE ACTION-NONE. THE AIR FORCE WILL NOT ALLOW ADDITIONAL OUTLAYS FOR NEW OSCILLATORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL AMPLIFIER-COMX ERS	A-49-24-3024F A-49-24-3024F TELEMETRY SET AND TRANSDUC SIGNAL AMPLIFIER-COMX ERS	FAR 27-01873-1	620720	FACTORY	YES	SEMOIX-PACIFIC NO 1031269-1	
FAILURE MODE-FAIL DURING OPERATION. THE SIGNAL AMPLIFIER FAILED WHEN NOISE WAS REPORTED ON ALL CHANNELS DURING VIBRATION TESTS. ANALYSIS SHOWED THAT THE COAXIAL CABLE AND THE YELLOW INPUT WIRE WERE NOT PROPERLY TIED DOWN TO OVERCOME RESONANCE.							

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							093040
							093009
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-99-24-3089F A-99-24-3089F A-99-24-3089F	PAR 27-01260-13	2080 620720	FACTORY	YES	BENDIX-PACIFIC MO 1030263-96A	
FAILURE MODE-OUT OF TOLERANCE. THREE OSCILLATORS FAILED DURING PRODUCTION TESTING OF THE TELEMETRY PACKAGES OF MISS ILES 2080, 1870 AND 45F. WHEN OUT-OF-TOLERANCE CONDITIONS WERE OBSERVED, THE REPORTED FAILURES WERE NOT CONFIRMED.							
							093090
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-99-24-3089F A-99-24-3089F A-99-24-3089F	PAR 27-01260-01	2080 620720	FACTORY	YES	BENDIX-PACIFIC MO 1030263-12-TA	
FAILURE MODE-FAIL DURING OPERATION. THE OSCILLATOR FAILED DURING MANUFACTURING TESTING OF THE TELEMETRY PACKAGE WHEN THE OUTPUT COULD NOT BE ADJUSTED. THE REPORTED FAILURE WAS NOT CONFIRMED.							
							093092
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-99-24-3089F A-99-24-3089F A-99-24-3089F	PAR 27-01260-03	620720	FACTORY	YES	BENDIX-PACIFIC MO 1030263-46A	
FAILURE MODE-OUT OF TOLERANCE. TWO OSCILLATORS FAILED DURING MANUFACTURING VIBRATION TESTING WHEN OUT-OF-TOLERANCE CONDITIONS WERE OBSERVED. THE REPORTED FAILURES WERE NOT CONFIRMED.							
							093092
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-99-24-3089F A-99-24-3089F A-99-24-3089F	PAR 27-01260-10	1830 620720	FACTORY	YES	BENDIX-PACIFIC MO 1030263-11-TA	
FAILURE MODE-FAIL DURING OPERATION. TWO VOLTAGE CONTROL OSCILLATORS FAILED DURING MANUFACTURING VIBRATION TESTING WHEN ONE HAD NO OUTPUT AND THE OTHER HAD 5 PERCENT DISTORTION AND 3 PERCENT PULS BANDWIDTH SHIFT. THE REPORTED FAILURES WERE NOT CONFIRMED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTM	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE.							003001
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-99-24-3088F FAILED COMPONENT NAME	FAR 87-01869-08	1970 080720	FACTORY	YES SENDIX-PACIFIC NO 1082141-186		003009
FAILURE MODE-ERRATIC OPERATION. TWO OSCILLATORS FAILED DURING MANUFACTURING VIBRATION TESTING WHEN ONE INDICATED NO 18E UP TO 14 PERCENT AND THE OTHER HAD FREQUENCY DRIFT FROM 9.8 KC TO 9.9 KC. THESE OSCILLATORS WERE FOR 1970 AND 97 F. THE REPORTED FAILURES WERE NOT CONFIRMED.							
CORRECTIVE ACTION-NONE.							003521
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR, WIRING ERS	A-99-24-3034-F FAILED COMPONENT NAME	FAR 87-01269-11	080720	FACTORY	YES SENDIX-PACIFIC NO		003521
FAILURE MODE-OPEN, ELECTRICAL. THE TELEMETRY PACKAGE OUTPUT SIGNAL BECAME ERRATIC DUE TO THE OSCILLATOR ERRATIC OUT PUT. THIS WAS CAUSED BY A BREAK AT THE JUNCTION BETWEEN COIL L-1 AND THE EXTERNAL LEAD IN WIRE.							
CORRECTIVE ACTION-VENDOR REQUIRED TO MAKE A MORE RIGID INSPECTION OF THESE OSCILLATORS.							003523
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC VOLTAGE CONTROLLED OSCILLATOR-VACU 7-01664-837 UM TUBE ERS	A-99-24-3026-F FAILED COMPONENT NAME	FAR 87-01664-837	080720	FACTORY	YES SENDIX NO		003523
FAILURE MODE-ERRATIC OPERATION. THE OSCILLATOR WAS NON-LINEAR AT CENTER FREQUENCIES. THIS WAS DUE TO A DEFECTIVE OS CILLATOR TUBE 9-2 (Sylvania type 6113).							
CORRECTIVE ACTION-NONE. A MORE RELIABLE EQUIVALENT TUBE WAS NOT AVAILABLE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-WIRING ERS	A-99-24-3005F FAILED COMPONENT NAME	FAR 88-01174-131	080720	FACTORY	YES SENDIX-PACIFIC NO 1082141-186		003523
FAILURE MODE-OPEN (ELECTRICAL). ONLY 0.61 VOLT OUTPUT WAS MEASURED WHEN 9.840 PLUS OR MINUS 0.005 IS REQUIRED. THE S WAS CAUSED BY AN OPEN WIRE IN THE POTTING.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

15 JUN 1966

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							002240
	CORRECTIVE ACTION-NO CORRECTIVE ACTION WAS TAKEN BY VENDOR.						002240
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC VOLTAGE CONTROLLED OSCILLATOR ERR	A99-24-3011F 7-01864-031		080720	FACTORY	YES BENDIX NO 1040659-AT	002240
	FAILURE MODE-ERRATIC OPERATION. POSITIVE AND NEGATIVE SPIRES WERE NOTED UP TO 15 PCT OF AMPLITUDE.						002240
	CORRECTIVE ACTION-AWO ISSUED TO FACTORY PERSONNEL TO INSURE TIGHT TESTING CABLE CONNECTIONS AND THOROUGH TESTING OF REPLACEMENT UNITS. FAILURE WAS NOT CONFIRMED OR DUPLICATED.						001920
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC VOLTAGE CONTROLLED TELEMETRY OSCILL 27-01868-0 ERR	A-99-24-3043-P 27-01868-0		080720	FACTORY	YES BENDIX-PACIFIC NO	001920
	FAILURE MODE-ERRATIC OPERATION. OUTPUT SIGNALS BECAME ERRATIC.						001920
	CORRECTIVE ACTION-NONE.						001920
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-RESISTOR ERR	A-99-24-3050-F 27-01868-3		080720	FACTORY	YES BENDIX-PACIFIC NO	001920
	FAILURE MODE-OPEN (ELECT). THERE WAS NO OUTPUT SIGNAL FROM THE OSCILLATOR. THE CAUSE WAS ISOLATED TO AN OPEN RESISTOR (R-17). THE RESISTOR DID NOT APPEAR TO HAVE OPENED AS THE RESULT OF AN OVER LOAD.						001920
	CORRECTIVE ACTION-NONE.						002206
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR MOTOR ERR	27-99-24-2737 27-12388-041		1960	FACTORY	YES 104700-0 NO	002206
	FAILURE MODE-OUT OF TOLERANCE DUE TO EXCESSIVE COMMUNICATOR MOTOR SPEED.						002206
	CORRECTIVE ACTION-EOP 330-474-01 CHANGED TO COMPLY WITH SPEC. CONTROL DWG. 27-01010-1.						002206

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC RELAY ERS	A-99-84-2437-F A-99-84-2437-F A-99-84-2437-F	FAR 86-73000-006	820716	FACTORY	YES	UNION SWITCH A NO NO SIGNAL UNSS89734-082
FAILURE MODE-OUT OF TOLERANCE. RELAY OPERATING TIME AFTER BEING ENERGIZED WAS REPORTED OUT OF TOLERANCE. N/A 7-1222 2-9.						
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED BY TEST AND PHYSICAL EXAMINATION REVEALED NO DISCREPANCIES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS	82-98-24-3077F 82-98-24-3077F	FAR 87-11841-811	820716	ETR-H	YES	SENDIX-NONTROS NO E 1098485-33
FAILURE MODE-STRUCTURAL. THE COMMUTATOR MOTOR FAILED WHEN AN RPM FLUCTUATION WAS OBSERVED. ANALYSIS SHOWED THAT THE MOTOR SPEED WAS VARIABLE, HIGH, AND OUT OF SPEC. THE FAILURE WAS CAUSED BY A PAIR OF GOVERNOR SWITCH CONTACTS WELDED TOGETHER AT ONE EDGE.						
CORRECTIVE ACTION-BENDIX PACIFIC STATED THAT THE PROBLEM WAS DUE TO HYDROGEN ENBRITTELEMENT, RESTRICTING GOVERNOR CO NEACT MOVEMENT. THE SUPPLIER INITIATED A MATERIAL CHANGE IN DECEMBER 1961.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	A9N-24-273F A9N-24-273F	FAR 87-01823-9	47F 820714	LAFS	YES	COLVIN NO
FAILURE MODE-EXTERNAL LEAK IN SEALED CHAMBER RESULTING IN TRANSDUCER READING SAUGE INSTEAD OF ABSOLUTE.						
CORRECTIVE ACTION-VENDOR INITIATED PROCEDURE EFFECTIVE MAY 14 1963 WHERE ALL ABSOLUTE UNITS WILL HAVE A SHELF LIFE OF AT LEAST 7 DAYS BETWEEN EVACUATION AND ACCEPTANCE TESTING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY CAPACITOR ERS	A-99-84-280F A-99-84-280F	FAR 87-11839-9	820708	FACTORY	YES	NO
FAILURE MODE-SHORT (ELECT). NO OUTPUT WAS RECEIVED ALTHOUGH 40 VOLTS WAS REQUIRED. THIS WAS DUE TO THE CASES OF CAP ACTORS C1 AND C2 BEING SHORTED TOGETHER. THIS APPEARED TO BE CONTRIBUTED TO BY THE PHYSICAL LAYOUT.						
CORRECTIVE ACTION-NONE. THE POWER SUPPLY IS OBSOLETE. SIMILAR DESIGNS STILL ACTIVE WILL BE REVIEWED FOR THIS DEFECT						

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SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
AND CORRECTED IF REQUIRED.							003204
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	A-99-24-280F	FAR 87-11889-8	080708	FACTORY	YES NO		001283
FAILURE MODE-SHORT (ELECTRICAL). MECHANICAL SHORT BETWEEN C1 AND C8 CASES.							
CORRECTIVE ACTION-NONE. UNIT OBSOLETE. NO FURTHER REQUIREMENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL PRESSURE TRANSDUCER ERS	H6-A9-24-285F	FAR 87-93800-U33	1130 080708	FACTORY	YES NO	YES SERVONICS	000634
FAILURE MODE-ELECTRICAL SHORT. THE UNIT FAILED WHEN A 5 PERCENT CHANGE IN THE OUTPUT READING OCCURRED. THE FAILURE WAS CONFIRMED. A PERMANENT SHIFT OF 2.3 PERCENT WAS OBSERVED AT THE 3.0 PSI POINT. THE INCREASE IN OUTPUT VOLTAGE AT THE 3.0 PSI POINT OCCURRED AS A RESULT OF SHORTED TURNS AT APPROXIMATELY THE 8.4 PSI POINT. THE SHORTED TURNS OCCURRED AS A RESULT OF THE WIPER ARM PEENING THE COIL DURING VIBRATION.							
CORRECTIVE ACTION-THE VENDOR MODIFIED THE TRANSDUCERS SO THEY ARE CAPABLE OF PASSING THE HIGHEST 4-LEVEL REQUIRED IN SPECIFICATION 27-01443.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR/REGULATOR ERS	8P-A9-24-3029F	FAR 87-12768-801	1600 080708	FACTORY	YES NO	YES FIFTH DIMENSIO	001390
FAILURE MODE-ELECTRICAL OPEN. CHANNELS 13, A AND C INDICATED NO COMMUTATION. FAILURE WAS CONFIRMED AND WAS DUE TO A N OPEN BASE-EMITTER JUNCTION OF TRANSISTOR 2H730 IN THE REGULATOR CIRCUIT.							
CORRECTIVE ACTION-THE CAUSE OF THE FAILURE WAS NOT DETERMINED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR/REGULATOR ERS	8P-A9-24-3029F	FAR 87-12768-801	1600 080708	FACTORY	YES NO	YES FIFTH DIMENSIO	
FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR SPEED WAS TOO FAST. IT WAS FOUND THAT THE SPEED WAS OUT OF SPECIFICATION WITH 80 VDC APPLIED. THIS WAS DUE TO THE VOLTAGE SETTING ON THE MOTOR BY THE VENDOR.							

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15 JUN 1988

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE VENDOR IMPROVED THE VOLTAGE REGULATOR AND THE SPEED TOLERANCE WERE INCREASED TO A MORE REALISTIC VALUE. REFER TO MEMO 848-3-82-186 DATED 821108.							881307
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERR							882033
FAILURE MODE-SHORT (ELECTRICAL). SHORT BETWEEN CE CASE AND TRANSFORMER TERMINAL 9.							
CORRECTIVE ACTION-NONE. UNIT OBSOLETE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY CAPACITOR ERR							881488
FAILURE MODE-SHORT (ELECT). NO OUTPUT WAS RECEIVED ALTHOUGH 40 VOLTS WAS REQUIRED. THIS WAS DUE TO THE CASE OF CAPACITOR CE BEING SHORTED TO GROUND. THIS APPEARED TO BE CONTRIBUTED TO BY THE PHYSICAL LAYOUT.							
CORRECTIVE ACTION-NONE. THE POWER SUPPLY IS OBSOLETE. SIMILAR DESIGNS STILL ACTIVE WILL BE REVIEWED FOR THIS DEFECT AND CORRECTED IF REQUIRED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERR							888888
FAILURE MODE-ERRATIC OPERATION-DURING TELEMETRY CHECKS SLIGHT SPIKING WAS OBSERVED ON THE MASTER PULSE FOR SUBCARRIER CHANNEL A. NO SPIKING WAS OBSERVED IN TESTS WHEN OUTPUTS OF ALL CHANNELS WERE VIEWED BY OSCILLOSCOPE AND SPECIAL ANALOG RECORDS.							
CORRECTIVE ACTION-NONE-FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERR							
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 11 SUBCARRIER OSCILLATOR SIGNAL INDICATED IMPROPER BANDWIDTH AND DISTORTED WAVEFORM. THESE WERE SUBSEQUENTLY FOUND TO HAVE BEEN CAUSED BY FAULTY FACTORY TEST EQUIPMENT.							

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15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEN' LE DATE DIF TIME	SITE DIF TIME	PHI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							001367
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER ERS	SP-90-24-271F	FAR	820703	WTR	YES		000886
	TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER	27-18890-809			NO		
FAILURE MODE-CONTAMINATION. DURING A SIMULATED COUNTDOWN THE SIGNAL CONDITIONER WAS IN OPERATIVE, DUE TO BALL BEARS WAS LOGGED BETWEEN THE GEARS.							
CORRECTIVE ACTION-EFFECTIVE AUG 8 1966 THE VENDOR INITIATED THE USE OF VISUAL AIDS FOR INSPECTION PRIOR TO SEALING THE SWITCHES OF WHICH THERE ARE THREE IN SUBJECT CONDITIONER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGEOVER SWITCH BEARING ERS	SP-90-24-271F	FAR	820703	WTR	YES	KINETICS	002067
	TELEMETRY SET AND TRANSDUC POWER CHANGEOVER SWITCH BEARING				NO		
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. POWER CHANGEOVER SWITCH FAILED DUE TO A BALL FROM A BEARING LOGGIN G BETWEEN THE GEARS. THE BEARING WAS EITHER IMPROPERLY INSTALLED OR DEFECTIVE.							
CORRECTIVE ACTION-THE VENDOR INITIATED THE USE OF VISUAL AIDS FOR INSPECTION PRIOR TO SEALING THE SWITCHES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER-COMMUTATOR ERS	A-90-24-283F	FAR	1130	WTR	YES	UNITED ELECTRO	028480
	TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER-COMMUTATOR	27-18848-8	020831		NO	DYNAMICS	
FAILURE MODE-FAIL DURING OPERATION. THE 10 RPS COMMUTATOR HAD PASSED ITS USEFUL LIFE SPAN.							
CORRECTIVE ACTION-NONE							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR ERS	A-90-24-283-F	FAR	1130	WTR	YES	UNITED ELECTRO	001366
	TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR		020831		NO	DYNAMICS	
FAILURE MODE-OUT OF TOLERANCE. THE 10 RPS MOTOR MALFUNCTIONED BY OPERATING INTERMITTENTLY. THIS WAS CAUSED BY ERROO ED AND Pitted GOVERNOR CONTACTS. THE USEFUL LIFE OF THE COMMUTATOR HAD APPARENTLY BEEN EXCEEDED.							
CORRECTIVE ACTION-NONE. THE COMMUTATOR IS NOW OBSOLETE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	BP-90-24-284P BP-90-24-284P	FAR 7-01732-5	620619	WTR	YES	BOURNS NO	002979
FAILURE MODE-LEAK INTERNAL. AN OPEN RESISTANCE WAS FOUND DURING A CONTINUITY CHECK. A LEAK IN THE BOURDON TUBE CAUSED ENTRAPPED GAS UNDER PRESSURE IN THE CASE WHICH CAUSED THE WIPER ARM TO RIDE OVER THE STOP AND BECOME DEFORMED, THEREBY OPENING THE CIRCUIT.							
CORRECTIVE ACTION-THE VENDOR HAS INITIATED HIGH PRESSURE LEAK CHECKING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	BP-90-24-282-F BP-90-24-282-F	FAR 7-01720-5	1450 620619	ETR	YES	BOURNS NO	002900
FAILURE MODE-CONTAMINATION. THE FAILURE WAS NOTED AS AN OPEN READING BETWEEN PINS A AND C. THIS WAS CAUSED BY A FIBER LODGED BETWEEN THE RESISTANCE COIL AND THE WIPER ARM.							
CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONVERTER ERS	A-90-24-299F A-90-24-299F	FAR 27-12642	57F 620619	WTR	YES	UNITED ELECTRO NO DYNAMIC 14362-M	003331
FAILURE MODE-FAILED DURING OPERATION WHEN TESTS ON MAPCHE DISCLOSED 400 CPS. INTERFERENCE IN THE OUTPUTS OF ALL SUBCARRIER CHANNELS. FAILURE ANALYSIS DID NOT CONFIRM FAILURE AS REPORTED. MODIFICATIONS PER ECP 9016 HAD NOT BEEN ACCOMPLISHED PRIOR TO REPORT I.R.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONVERTER ERS	A-90-24-299F A-90-24-299F	FAR 27-12642	57F 620619	WTR	YES	UNITED ELECTRO NO DYNAMICS	003384
FAILURE MODE-OUT OF TOLERANCE. MAPCHE EQUIPMENT DISCLOSED 400 CPS INTERFERENCE IN THE OUTPUTS OF ALL SUBCARRIER CHANNELS.							
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED. THE INTERFERENCE MAY HAVE BEEN DUE TO IMPROPER GROUNDING.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX82-0030/ARI41-0-1-113/PC-4CO-02- TLM CANISTER	COMPOSITE-FACTORY 87-12290-011	1130 920813		YES NO		999337
<p>FAILURE MODE-OUT OF TOLERANCE-VARIATIONS UP TO 9 PER CENT ISU WERE INDICATED ON TLM MEASUREMENTS FOR PITCH, YAW AND ROLL DISPLACEMENT SYROS, BUT WERE NOT EVIDENT ON ENGINE FEED BACK TRANSDUCERS. THIS WAS ATTRIBUTED TO SIGNAL CONDUIT IONING CIRCUITRY IN TELEMETRY CANISTER.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION-TLM SIGNALS WERE VARIING UP TO 9 PER-CENT OF ISU.</p> <p>VEHICLE EFFECT-COMPOSITE DELAY.</p> <p>CORRECTIVE ACTION-ECP Y092 WHICH IS SCHEDULED AS A POST ACCEPTANCE TASK WILL, CORRECT THIS CONDITION.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-3073C TELEMETRY TAPE RECORDER	FAR	920409	ETR	YES NO	SPREIDEL NO 97.5-1	999352
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING TESTING THE TAPE IN THE TAPE-RECORDER MAGAZINE WAS FOUND JAMMED BETWEEN THE CAPSTAN AND IDLER WHEEL. THE TAPE AND RECORDER MOTOR CAN WEAR TO THE POINT WHERE THE TAPE CAN FAIL BY JAMMING. THIS WOULD HAPPEN WHEN THE USEFUL LIFE OF THE RECORDER WAS EXCEEDED. THERE WAS NO FAILURE ANALYSIS.</p> <p>CORRECTIVE ACTION-NONE.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-98-24-237F OSCILLATOR-POTENTIOMETER	FAR	1330 620804	ETR	YES NO	BENDIX PACIFIC	999792
<p>FAILURE MODE-FAILS TO OPERATE AT PRESCRIBED TIME DURING SYSTEM CHECKOUT. POSSIBLE FAILURE OF POTENTIOMETER CIRCUIT.</p> <p>CORRECTIVE ACTION-VENDOR INSTITUTED A TWO STAGE PROGRAM OF POTENTIOMETER IMPROVEMENT THAT BECAME EFFECTIVE IN THE SPRING OF 1961. DV CHANGES IN POTENTIOMETER MATERIAL USED, MANUFACTURING, AND INSPECTION PROCEDURES.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-98-24-237F TELEMETRY OSCILLATOR	FAR	1330 620804	ETR	YES NO	BENDIX PACIFIC	
<p>FAILURE MODE-ERRATIC OPERATION. DURING SYSTEM CHECKOUT 8/191799 WAS INTERMITTENT POSSIBLE FAILURE OF POTENTIOMETER CIRCUIT.</p>							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	DATE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							000703
	CORRECTIVE ACTION-VENDOR INSTITUTED A TWO STAGE PROGRAM OF POTENTIOMETER IMPROVEMENT THAT BECAME EFFECTIVE IN THE SPRING 1961. BY CHANGES IN POTENTIOMETER MATERIAL USED, MANUFACTURING, AND INSPECTION PROCEDURES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	SP-A9-24-282F	FAR 27-01016-1	620530	FACTORY	YES	APPLIED ELECTRONICS DC-1-D18	000028
	FAILURE MODE-OUT OF TOLERANCE. WITH NEGATIVE INPUT THE OUTPUT WOULD NOT EXCEED 1.5 VOLTS SPEC. REQUIRES 5 VOLTS.						
	CORRECTIVE ACTION-UNKNOWN. CAUSE OF FAILURE COULD NOT BE DETERMINED						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DIFFERENTIAL D-C AMPLIFIER ERS	SP-A9-24-272-F	FAR 27-01016-1	620530	FACTORY	YES	APPLIED ELECTRONICS NO ONICS	001800
	FAILURE MODE-OUT OF TOLERANCE. LOW AMPLITUDE PULSE READINGS WERE OBSERVED ON 7 OF ITS TERMINALS AND NEGATIVE-GOING PULSE READINGS ON 3 OTHER TERMINALS.						
	CORRECTIVE ACTION-NONE. DAMAGE DURING TROUBLE SHOOTING PROHIBITED LOCATING THE EXACT CAUSE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	HC-20-24-266F	FAR 33-01148-3	1070 620521	ETR	NO	TEXAS INSTRUMENTS NO MTS 435378-7	000089
	FAILURE MODE-OUT OF TOLERANCE. DUE TO BEING OFF CENTER FREQUENCY BY 38KC AS DETERMINED BY THE RANGE GROUND STATION. DURING OPERATION OF THE MISSILE PER. CON 27-00593-OK. TESTS IN ETR TELEMETRY LAB. INDICATED OFF CENTER FREQUENCY BY 11.2 SPEC. MAX. ALLOWABLE 28KC. FAILURE WAS NOT CONFIRMED.						
	CORRECTIVE ACTION-CAUSE OF REPORTED FAILURE FOUND TO BE FAULTY TEST EQUIPMENT WHICH HAS SINCE BEEN REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A-A9-24-289F	FAR 27-01890-1	620518	FACTORY	YES	SOLID STATE ELECTRONICS C-1109	
	FAILURE MODE-OUT OF TOLERANCE. DURING TESTING IN FACTORY UNIT OUTPUT WAS LOW AND INTERMITTENT. CAUSED BY POOR SOLDER CONNECTION SHOWING A CRYSTAL INPUT WIRE TO THE 100KC CRYSTAL IN THE TANK CIRCUIT OF THE OSCILLATOR.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIF IOTH	PRI VENDOR NAME	VENDOR PAINT NO
CORRECTIVE ACTION-THE VENDOR BLOWED THE CONVEYOR BELT DOWN TO PROVIDE AN IMPROVED HEAT CYCLE IN BONDING CRYSTAL LEAD TO CRYSTAL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER/0-100 PSIA ERS	SP-9D-24-877-F FAR	680315 MTR	YES	YES	YES	YES
FAILURE MODE-LEAK INTERNAL. THE TRANSDUCER REPORTEDLY READ APPROXIMATELY 1.23 PERCENT WITH 9 PSIG IN THE FUEL TANK. A READING OF 24 PERCENT IS REQUIRED. THIS WAS DUE TO A LEAK INSIDE THE SEALED CHAMBER. IT IS CONCLUDED THAT THE LEAK OCCURRED AT THE SOLDER SEAL.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGE/OVER SWITCH ERS	HC-9B-24-870F FAR	680203 ETR	YES	YES	YES	YES
FAILURE MODE-OPEN (SELECT) - OCCURRED DURING SWITCHING FROM EXTERNAL TO THE INTERNAL MODE. TROUBLE SHOOTING INDICATED MOTOR COIL WAS OPEN CIRCUITED-FAILURE WAS CONFIRMED WHEN MOTOR COIL WAS FOUND BURNED OPEN DUE TO EXCESSIVE PASSAGE OF CURRENT.						
CORRECTIVE ACTION-TWO SENT TO ETR WARNING COGNIZANT PERSONNEL TO CONFORM TO TEST OPERATIONS PER PROCEDURES- ENGINEERING WILL MAINTAIN SURVEILLANCE OF POWER CHANGE/OVER SWITCHES; EFFECTIVE AUG 6 1962.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC 2.5 RPS COMMUTATOR ERS	CT-9B-24-025-F FAR	1040 21R 680424	NO	NO	NO	NO
FAILURE MODE-FAILED DURING OPERATION. DUE TO FAILURE OF POWER INPUT (TRANSIST. 4 2N616). PROBABLE TRANSISTOR FAILURE WAS DUE TO REVERSE VOLTAGE APPLICATION DURING BENCH TEST.						
CORRECTIVE ACTION-PROVIDE SITE PERSONNEL WITH CORRECT TEST EQUIPMENT AND OPERATING PROCEDURES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TELEMETRY ACCESSORY PACKAGE ERS	AES2-9447/PS-4MO-00-133 FAR	COMPOSITE-FRD/DPL 133D	ETR-12	YES	YES	YES
FAILURE MODE-FAIL DURING OPERATION-TELEMETRY ACCESSORY PACKAGE HAD TO BE REPLACED.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE DIF TIME DIF	PRI DIF TIME DIF	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-UNKNOWN.						
CORRECTIVE ACTION-REPLACED TELEMETRY ACCESSORY PACKAGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUC ERS	SP-98-24-291-F PRESSURE TRANSDUC	FAR 7-01731-5	62/410	ETR	YES	BURNS NO
FAILURE MODE-OUT OF SPECIFICATION. A CALIBRATION CHECK INDICATED THAT THE PRESSURE WAS 25 PSI LOWER THAN NORMAL AT 737 PSI LEVEL OF THE BOOSTER CONTROL PNEUMATIC REGULATOR OUTPUT. THIS TRANSDUCER WAS ACCEPTED ON THE BASIS OF A VENDOR DATA SHEET AND APPARENTLY WAS OUT OF TOLERANCE WHEN RECEIVED.						
CORRECTIVE ACTION-MS 63-24 AB WAS RELEASED, CLARIFYING CALIBRATION AND CLEANING REQUIREMENTS FOR THIS TRANSDUCER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PRESSURE TRANSDUC	FAR 7-01732-5	1040 620411	AMR	YES	BURNS NO
FAILURE MODE-CONTAMINATION. OUTPUT OF ONE TRANSDUCER WAS LOW AND THE OTHER WAS FLUCTUATING PLUS OR MINUS 50 PSI. BOTH FAILURES CONFIRMED. LOW OUTPUT CAUSED BY ADJUSTMENT BELOW SPECIFIED TOLERANCE FLUCTUATING ON PUT CAUSED BY A FIBER RIDING UNDER THE WIPER CAUSING WIPER TO LIFT AWAY FROM RESISTANCE ELEMENT.						
CORRECTIVE ACTION-VENDOR CORRECTIVE ACTION WAS TAKEN BY RIGID QUALITY CONTROL INSPECTION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR ERS	AC-98-24-258F COMMUTATOR, MOTOR	FAR	1330 620405	ETR	YES	BENDIX MONTROS NO E 1096465-45
FAILURE MODE-ERRATIC OPERATION. DURING FLIGHT ACCEPTANCE COMPOSITE TEST COUNTDOWN, THERE APPEARED TO BE A SECOND SIGNAL ON THE RF-1 CARRIER. FAILURE NOT CONFIRMED POSSIBLY RF INTRODUCED THROUGH NOISE OF MOTOR.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	SP-93-24-250-F AMPLIFIER	FAR 59-01173-1	620326	ETR	YES	MAYBERRY YES
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A SECTION OF THE DIFFERENTIAL AMPLIFIER HAD A LOW OUTPUT OF 0.9 VOLT RMS IN						

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LEAD OF THE SPECIFIED 1.77 VOLTS RMS. THE AMPLIFIER AND A REPLACEMENT COULD NOT BE ADJUSTED, TENDING TO PLACE SUSPICION ON THE REST OF THE PACKAGE. FAILURE WAS NOT CONFIRMED.						
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	CT-98-24-034-C RD VOLT REGULATOR	FAR 27-01333-1	620324	ETR	YES	BENDIX NO
FAILURE MODE-OUT OF TOLERANCE. WITH AN INPUT OF 27 VOLTS DC THE REGULATOR OUTPUT WAS 28 VOLTS DC. THE EXPECTED OUTPUT IS 20 VOLTS DC.						
CORRECTIVE ACTION-NONE. THE FAILED PART WAS NEVER RECEIVED BY GD/C SAN DIEGO FOR FAILURE ANALYSIS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	A-90-24-258F CONNECTOR	FAR 27-12242-5	1100	WTR	YES	UNITED ELECTRO DYNAMICS 11121
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING SYSTEM CHECKOUT, TRANSMITTER HAD NO OUTPUT. FAILURE WAS CONFIRMED. DUE TO CONNECTOR J3 WITH LOOSE PIN.						
CORRECTIVE ACTION-DESIGN GROUP ANSWER TO FAR ASD-24-040 ON 21 MAY 1968. AN/DKT-15 TRANSMITTER HAS BEEN REPLACED BY AN/DKT-17 TRANSMITTER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	AA62-0045/P6-4CO-04-F1 TLM CANISTER	COMPOSITE-J FACT	1040	ETR-36A	NO	NO
FAILURE MODE-ERRATIC OPERATION. A BURST OF BLIPS OCCURRED ON THE TELEMETRY CHANNELS MONITORING JETTISON INSULATION COMMAND AND FIRING THROUGHOUT BOTTLES COMMAND FROM 294.5 TO 484.5 SECONDS. A SIMILAR OCCURRENCE WAS OBSERVED ON P6-4C 0-01-F1 (REF AA62-0040). THIS WAS CAUSED BY FEEDBACK FROM THE GANTRY TEST RACK.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. TELEMETRY CHANNELS MONITORING TWO COMMAND FUNCTIONS INDICATED IMPROPER DISCRETE DURING THE TEST.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE. PROBLEM WILL NOT OCCUR WITH UMBILICAL EJECTED.						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CAMISTER ERS	AASB-0041/P6-4CO-02-F1 COMPOSITE-J FACT	104D 820308	38/ETR	YES	YES	091485
FAILURE MODE-OUT OF TOLERANCE. TELEMETRED DATA INDICATED A 2 PER CENT 18W OSCILLATION IN THE S1 VAN/ROLL DATA. THE S WAS ALSO OBSERVED ON TEST P6-4CO-01-F1 (REF. AASB-0040).						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS TELEMETRED DATA INDICATED A 2 PERCENT 18W OSCILLATION IN THE S1 VAN-ROLL DAT A. THIS ALSO OCCURRED ON TEST P6-4CO-01-F1 (REF. AASB-0043).						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER CAPACITOR ERS	A-AD-24-249F A-AD-24-249F	27-18382-8	620301	SAN DIEG	YES	092110
FAILURE MODE-OUT OF TOLERANCE. ISOLATION AMPLIFIER AND CRYSTAL RECTIFIER IDENTIFIED AS FAILED WHEN A GRAPH OF INPUT VOLTAGE VERSUS OUTPUT VOLTAGE WAS 0.26 VOLT FROM A STRAIGHT LINE DRAWN BETWEEN THE ENDPOINTS. SPECIFICATIONS REQUIRE THE GRAPH TO BE WITHIN 0.1 VOLT OF THE STRAIGHT LINE DRAWN BETWEEN THE END POINTS. CAUSE OF FAILURE WAS FOUND TO BE A FAULTY CAPACITOR C2, A 100 MICROFARAD, IS VDC POROUS TANTALUM TYPE. CAUSE OF THE CAPACITOR FAILURE, HOWEVER, COULD NOT BE DETERMINED.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER DEMODULATOR ERS	SP-08-24-249-F SP-08-24-249-F	27-01010-1	620300	ETR	YES MAYBERRY	092111
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. TWO DC AMPLIFIERS FAILED DURING TROUBLESHOOTING OF THE TELEMETRY PACKAGE. ONE AMPLIFIER OUTPUT COULD NOT BE ADJUSTED INTO TOLERANCE. THE BROWN AND WHITE WIRES FROM THE CONNECTOR PINS 5 AND 6 WERE REVERSED. INTERMITTENT CONTINUITY OCCURRED DUE TO THE BROWN WIRE, THE NEGATIVE INPUT LEAD, BEING DAMAGED BETWEEN ONE OF THE MOUNTING STUDS AND THE CIRCUIT BOARD. THE WIRE INSULATION WAS ALSO BROKEN. BOTH AMPLIFIERS INDICATED A POSITIVE INPUT ON PIN 5 WITH RESPECT TO PIN 8 WHICH WAS NORMAL. HOWEVER, WHEN THE POLARITY WAS REVERSED THE OUTPUT CONTINUED TO BE POSITIVE AT A LESSEER AMPLITUDE WHEN A NEGATIVE OUTPUT WAS EXPECTED. THE CAUSE OF THE FAILURES WAS THEN FOUND TO BE A DESIGN DEFICIENCY IN THE DEMODULATOR CIRCUITS OF BOTH AMPLIFIERS.						
CORRECTIVE ACTION-NONE CORRECTIVE ACTION IS REQUIRED OF THE DESIGN. DEFICIENCY OF THE DEMODULATOR CIRCUITS SINCE THE VENDOR HAS BEGUN INITIATING THE CHANGE. HOWEVER, THE REVERSED AND BROKEN WIRES AS A RESULT OF POOR WORKMANSHIP NECESSITATED RECOMMENDATION OF IMPROVED VENDOR QUALITY CONTROL PROCEDURES.						

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-24-248-F OSCILLATOR ELECTRONIC TUBE	FAR 27-01804-001	580226	ETR	YES NO	BENDIX-PACIFIC UNKNOWN	992109
FAILURE MODE-ERRATIC OPERATION. OSCILLATOR OUTPUT CENTER FREQUENCY TRACE WAS NON-LINEAR WHEN THE OSCILLATOR WAS ADJUSTED WITHIN BAND LIMITS. FAILURE WAS CAUSED BY THE CHANGE OF CHARACTERISTICS OF THE CONTROL TUBE VI (5713) DUE TO A 61MG. THIS CAUSED A SHIFT IN THE NORMAL FREQUENCY OF THE TANK CIRCUIT WHICH IS IN SERIES WITH THE CONTROL TUBE. WHEN THE TUBE CHARACTERISTICS CHANGE IT IS NECESSARY TO CHANGE THE VALUES OF THE R8 AND R15 RESISTORS TO RETURN THE TANK CIRCUIT TO THE DESIRED CENTER FREQUENCY LINEARITY.							
CORRECTIVE ACTION-RECOMMENDED INITIATING A CIRCUIT DESIGN CHANGE THAT WOULD MAKE THE CIRCUIT LESS SENSITIVE TO THE CONTROL TUBE CHARACTERISTICS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-98-24-523-F OSCILLATOR TUBE	FAR 27-13537-3	620227	ETR	YES NO	BENDIX	992539
FAILURE MODE-DRIFT. OSCILLATOR FREQUENCY DRIFT DUE TO FAULTY MODULATOR TUBE WHICH HAD EXCEEDED ITS LIFE EXPECTANCY.							
CORRECTIVE ACTION-REFURNISH OSCILLATOR IF EXPECTED TO SERVE BEYOND THE DESIGN LIFE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A62-U030/P3-901-00-40 COMPUTER	COUNTDOWN 21-15371-877	40E 620813	13 -8700	YES NO		990239
FAILURE MODE-FAIL DURING OPERATION. COMMUTATOR ON CHANNEL 13 OF TELEMETRY NO.1 FAILED. (NO SPECIFIC DETAILS GIVEN).							
SYSTEM EFFECT-ERRATIC OPERATION. NO COMMUTATION ON CHANNEL 13.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-CANISTER WAS REMOVED AND REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-248-F COMMUTATOR-BRUSHES	FAR	40E 620813	AMR	YES NO	REED AND REED 1096485-48	
FAILURE MODE-STRUCTURAL. CHANNEL 13 DID NOT INDICATE COMMUTATION, MOTOR OPERATOR INTERMITTENT. FAILURE CAUSED BY EXCESSIVE BRUSH WEAR WHICH RESULTED IN CARBON DEPOSITS BETWEEN THE CONTACTS OF THE SPEED CONTROL.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	OIF DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							091943
	CORRECTIVE ACTION-MOTOR BEING REPLACED WITH BENDIX MONTROSE MOTOR, EFFECTIVE DEC 62.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER, DIODE CR8	A-98-24-240-F 87-12381-3	FAR 820212	40C ETR	YES NO	TEXAS INSTRUMENTS INTESA	091941
	FAILURE MODE-FAIL DURING OPERATION. THE TEMPERATURE BRIDGE CIRCUIT IN ACCESSORY CANISTER HAD LOW OUTPUT. DIODE CR-2 HAD BROKEN DOWN. CAUSE DUE TO EXCESSIVE CURRENT WHICH WAS CAUSED BY BURNED OUT SECTION C WIPER OR HUMAN ERROR.						
	CORRECTIVE ACTION-NONE SINCE EXACT CAUSE OF EXCESSIVE CURRENT WAS NOT DETERMINED.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ER8	AR141-0-3-21/PC-8CO-08-081 87-12372-817	COMPOSITE-FACTORY RIF 820206	YES NO	BENDIX		090091
	FAILURE MODE-ERRATIC OPERATION-CHANNEL 13 OF RFE INDICATED A NEGATIVE RATE OF 13 PER CENT DBM WHEN A RATE OF 20 PER CENT WAS EXPECTED. ALSO CHANNEL 12 INDICATED NOISE OF UP TO 6 PERCENT. FBW. ALSO REPAIRED FOLLOWING FC. 8CO-03-051 AM D FC-8CO-04-021 COMPOSITE TESTS						
	SYSTEM EFFECT-ERRATIC OPERATION.						
	VEHICLE EFFECT-COMPOSITE RESCHEDULED-COMPOSITE RE-RAN TO SHOW SATISFACTORY SYSTEM OPERATION.						
	CORRECTIVE ACTION-RF CANISTER IR/D (PTR 16510) (PTR10408) AND (PTR 1948).						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER-POWER ER8	A-90-24-239-F 87-12360-811	FAR 820206	1120 WTR	YES NO		091939
	FAILURE MODE-ERRATIC OPERATION, THE 5-VOLT POWER SUPPLY OUTPUT FLUCTUATED BEYOND ALLOWABLE TOLERANCES.						
	CORRECTIVE ACTION-NONE SINCE FAILURE COULD NOT BE VERIFIED OR DUPLICATED.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONVERTER-TRANSDUC ER8	A-90-24-239-F 87-12360-809	FAR 820206	44C PHR	NO NO		
	FAILURE MODE-OUT OF EXPECTED TEST VALUE. OUTPUT INDICATED ENGINE PUMPS WERE OPERATING AT 100 PERCENT WHEN IMPACT IN CY WERE NOT OPERATING. CAUSE OF FAILURE DUE TO 3 FAULTY AC TO DC CONVERTERS WHICH RESULTED FROM TRANSDUC 03 (24333) BEING OVERHEATED. OVERHEATING DUE TO VOLTAGE REVERSAL ON 80VDC INPUT LINE CAUSED BY HUMAN ERROR.						

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CORRECTIVE ACTION-PERSONNEL ADVISED TO USE MORE CARE WHEN MAKING ELECTRICAL CONNECTIONS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-WIRING ERS	AA-82-0074/P1-8CO-01-07	COMPOSITE-B FACT 820202 87-12301-3	77 820202	ETR-11	YES NO	YES BENDIX NO
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. RF 1 CHANNEL 7 WAS MALFUNCTIONING. (NO SPECIFIC DATA AS TO NATURE OF PROBLEM). CAUSE OF PROBLEM WAS TRACED TO WIRING ERROR MADE DURING MODIFICATION OF THE PACKAGE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM THE MEASUREMENT ON THIS CHANNEL WAS INVALID. VEHICLE EFFECT-COMPOSITE DELAYED. CORRECTIVE ACTION-RF1 REMOVED AND REPLACED. WIRING ERROR CORRECTED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMUTATOR ERS	AA82-0074/P1-8CO-01-07	COMPOSITE-B FACT 820202	77 820202	11	YES NO	YES NO
FAILURE MODE-OUT OF TOLERANCE. BIAS ON CHANNEL 11 DATA DUE TO MISALIGNMENT OF COMMUTATOR. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM CHANNEL 11 WAS INVALID. VEHICLE EFFECT-COMPOSITE DELAYED. CORRECTIVE ACTION-RF PACKAGE WAS REMOVED AND REPLACED. PACKAGE WAS REPAIRED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC 40 KC OSCILLATOR-WIRING ERS	CT-98-24-018-P	PAR 87-01332-041	880202	ETR	YES NO	YES BENDIX NO
FAILURE MODE-ELECTRICAL OPEN. BROKEN WIRE AT RESISTOR R19. FAILURE ATTRIBUTED TO SUBSTANDARD WORKMANSHIP. CORRECTIVE ACTION-BAR A-98-24-837 RECOMMENDING VENDOR NOTIFICATION OF POOR WORKMANSHIP.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER POWER SUPPLY ERS	CT-98-24-014-P	PAR 87-11624-5	880124	ETR	NO NO	NO 80/C NO
FAILURE MODE-OUT OF TOLERANCE. OUTPUT EXCEEDED ALLOWABLE NOISE LEVEL (140 MV NOISE VERSUS 40 MV ALLOWED).						

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CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. THE REPORTED FAILURE WAS DUE TO HUMAN ERROR BY USE OF THE WRONG INSTRUMENTS. PERSONNEL WERE ADVISED TO USE TRUE RMS METER FOR MAKING THE MEASUREMENT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER SUPPLY	A68-0075/83-401-00-132 TELEMETRY PLUS SVDC XDCER POWER 3	FLIGHT	1920	ETR-13	YES	NO
FAILURE MODE-FAIL DURING OPERATION. THE 9-VOLT TRANSDUCER POWER SUPPLY FAILED AT 139.17 SECONDS, BELIEVED CAUSED BY SHORTING THE VERNIER YAW ENGINE POSITION TRANSDUCERS DUE TO AERODYNAMIC HEATING. VERNIER ENGINE TRANSDUCER WIRING WAS NOT WRAIPEID FOR THIS FLIGHT.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. 34 OF THE 51 INSTRUMENTED MEASUREMENTS WERE LOST AT THAT TIME.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER VOLTAGE REGULATOR-TRANSISTOR	A-98-24-235-F	FAR	980119	AMR	YES	NO 1001250
FAILURE MODE-SHORT (SELECT). OUTPUT VOLTAGE NAME AS INPUT INSTEAD OF SPECIFIED 20 VDC. FAILURE CAUSED BY SHORTED TRANSISTOR Q1(2N1481). TRANSISTOR FAILURE PROBABLY DUE TO OVERLOAD OR SHORT OF OUTPUT VOLTAGE.						
CORRECTIVE ACTION-NONE. THIS SECONDARY FAILURE DUE TO OVERLOAD OR HUMAN ERROR.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER OSCILLATOR/WIRING	A-98-24-234-F	FAR	980119	AMR	YES	NO 1000093-14-AA
FAILURE MODE-OPEN (ELECTICAL). NO OUTPUT. FAILURE CAUSED BY BROKEN LEAD FROM RESISTOR R19 TO GROUND. LEAD BROKEN DURING POTTING.						
CORRECTIVE ACTION-VENDOR PERSONNEL ADVISED TO PAY PARTICULAR ATTENTION TO SOLDERED JOINTS AND WIRES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER CRYSTAL RECTIFIER	H6-98-24-209-F	FAR	980119	AMR	YES	NO
FAILURE MODE-OUT OF TOLERANCE. WITH 115VAC CYCLE INPUT APPLIED, NO OUTPUT VOLTAGE WAS MEASURED. CAUSE OF FAILURE D						

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USE TO RECTIFIER NOT BEING PROPERLY ADJUSTED PRIOR TO TORQUE PAINTING THE ADJUSTMENT SCREW.						
CORRECTIVE ACTION-QUALITY CONTROL TAKING MEASURES TO IMPROVE QUALITY CONTROL ON THIS ITEM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AGE-0074/BS-401-00-123 FLIGHT	1230 020117	YES NO			
FAILURE MODE-OUT OF SPECIFICATION. RF1 SUBCARRIER IS COMMUTATOR SPEED VARIED BETWEEN 5.5 AND 10 RPS. PLANNED RATE W AS 10 RPS. THIS PROBLEM WAS ATTRIBUTED TO A RANDOM FAILURE OF THE COMMUTATOR MOTOR ASSEMBLY.						
SYSTEM EFFECT-ERRATIC OPERATION. HOWEVER, NO DATA WAS LOST.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-98-24-238-F PRESSURE TRANSDUCER	FAR 7-01731-5	1210 020115	YES NO		
FAILURE MODE-LEAK INTERNAL. TRANSDUCER FOUND LEAKING DURING LEAK CHECK. FAILURE DUE TO A CRACK IN THE SOLDER AT THE ELECTRICAL RECEPTACLE. CRACKED SOLDER RESULTED FROM MISHANDLING.						
CORRECTIVE ACTION-PERSONNEL ALERTED TO EXERCISE MORE CARE WHEN HANDLING THESE TRANSDUCERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3214-F COMMUTATOR-BRUSHES	FAR	020109	FACTORY	YES NO	YES NO
FAILURE MODE-OUT OF TOLERANCE. MOTOR SPEED TOO HIGH. CAUSED BY BRUSH WEAR.						
CORRECTIVE ACTION-NONE. THE FAILURES WERE NOT CONFIRMED BY FAILURE ANALYSIS. INFORMATION CONTAINED IN THE FAR WAS S ENT TO SUPPORT PUBLICATIONS TO INSURE COMPATIBILITY WITH APPLICABLE OPERATIONAL TECHNICAL ORDERS.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	HC-43-24-217-F PRESSURE TRANSDUCER	FAR 7-01720-5	1070 020107	FACTORY	YES NO	YES NO
FAILURE MODE-CONTAMINATION. MEASUREMENT HSP INDICATED VARIATIONS OF SPIKING UP TO 13 PERCENT. CAUSE OF FAILURE DUE						

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	TO FOREISH MATTER ON TRANSDUCER RESISTANCE WINDING AND IS CONSIDERED A MANUFACTURING DEFECT.						991920
	CORRECTIVE ACTION-VENDOR ALERTED TO IMPROVE WORKMANSHIP AND QUALITY CONTROL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR ERR	ARI41-0-3-181/FC-8CO-02-010	COMPOSITE-FACTORY	16F 850106		YES NO	BENDIX	999002
		87-12872-817					
FAILURE MODE-ERRATIC OPERATION-THE COMMUNICATOR SPEED FOR CHANNELS 18 AND 19 OF RF NO. 2 VARIED THRU OUT THE TEST.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED-RE-RUN OF COMPOSITE MADE.							
CORRECTIVE ACTION-THE RF PACKAGE WAS IR/D AND REPAIRED AND REINSTALLED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR ERR	AG-08-34-233-F	FAR	181D 420106	ANK	YES NO	BENDIX PACIFIC	991934
FAILURE MODE-ERRATIC OPERATION. CALIBRATOR SHOWED APPROX. 10 PERCENT RIPPLE ON OUTPUT.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERR	A482-0017/P2-4CO-08-181	COMPOSITE-J FACT	181D 820103	ETR-18	YES NO		991849
FAILURE MODE-OUT OF TOLERANCE. 100 CPS NOISE WAS OBSERVED ON SYNC PULSES ON ALL COMMUTATED CHANNELS. MAGNITUDE OF NOISE WAS APPROXIMATELY 20-25 PERCENT 18V. THIS WAS OBSERVED ON TEST P2-4CO-01-181 ALSO.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. ALL COMMUTATED CALIBRATION SYNC PULSES WERE DISTORTED BY NOISE.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-TELEMETRY CANISTER WAS REMOVED AFTER TEST. FURTHER INVESTIGATION REVEALED THE PROBLEM TO BE IN THE ACCESSORY PACKAGE AND IT WAS SUBSEQUENTLY REPLACED.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER, HARNESS ERS	ARI41-0-3-16/FC-800-08-018 COMPOSITE-FACTORY 187 87-18871-828	COMPOSITE-FACTORY 187 87-18871-828	911887	YES NO	YES NO	989899
<p>FAILURE MODE-ERRATIC OPERATION-TLM MEASUREMENTS INDICATED SUPER-IMPOSED MODULATIONS DURING THE TEST, PLUG P7 IN THE RF PACKAGE WAS FOUND TO CONTAIN LONG PISTAIL WHICH CAUSED THE INTERFERENCE.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION-SHORTING PIG-TAIL LEADS CAUSED ERRATIC SIGNAL MODULATION.</p> <p>VEHICLE EFFECT-COMPOSITE RESCHEDULED. RE-RUN OF COMPOSITE REQUIRED.</p> <p>CORRECTIVE ACTION-THE PIG-TAILS WERE SHORTENED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER ERS	AE81-1275/LR-401-00-114 FLIGHT	1140 911882	1-2 142.28	YES NO	YES NO	989353
<p>FAILURE MODE-OUT OF EXPECTED TEST VALUE. SYNC AND 100 PCT CALIBRATION PULSE OF CHANNEL 13 DROPPED TO 0.25 V AND REMAINED FOR DURATION OF FLIGHT. ALSO 90 PCT CALIBRATION PULSE OF CHANNELS 14 AND 15 DROPPED TO ZERO AT 273.43 SECONDS.</p> <p>SYSTEM EFFECT-OPERATION TOO LOW. MEASUREMENTS DERIVING TRANSDUCER EXCITATION VOLTAGES FROM CHANNEL 14 AND 15 TRANSFER POWER SUPPLY WERE LOST.</p> <p>VEHICLE EFFECT-NONE. VEHICLE AND MISSION UNAFFECTED BY LOSS OF DATA.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER RF NO.1 ERS	AE81-1282/PA-601-00-06 FLIGHT	9F 911880	11 860	YES NO	YES NO	987451
<p>FAILURE MODE-FAIL DURING OPERATION. TELEMETRY GROUND STATIONS INDICATED A DROP IN RECEIVED SIGNAL STRENGTH AS WELL AS APPARENT LOSS OF SIGNAL MODULATION. PROBABLY DUE TO SHIFT OF CARRIER FREQUENCY.</p> <p>SYSTEM EFFECT-OPERATION STOPS PREMATURELY. DATA TELEMETRED VIA RF 1 WAS LOST AFTER 280 SECONDS.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGE/VER SWITCH/MOTOR ERS	A-48-24-232-P PAR 7-01788-3	911810	FACTORY NO	FACTORY NO	FACTORY NO	987451
<p>FAILURE MODE-OPEN (ELECT). SWITCH FAILED TO OPERATE. FAILURE CAUSED BY OPEN ARMATURE OF THE MOTOR. ARMATURE FAILURE</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	ATTRIBUTED TO INCORRECT APPLICATION OF 88 VDC POWER.						003034
	CORRECTIVE ACTION-PERSONNEL CAUTIONED TO USE EXTRA CARE WHEN CHECKING THESE SWITCHES AND WHEN APPLYING POWER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSUDC POWER CHANGEOVER SWITCH/MOTOR ERS	A-88-24-231-F	FAR 27-01808-8	011215	FACTORY	NO KINETICS NO		001303
FAILURE MODE-OPEN (ELECT). SWITCH FAILED TO OPERATE. FAILURE CAUSED BY AN OPEN ARMATURE OF MOTOR. ARMATURE FAILURE ATTRIBUTED TO INCORRECT APPLICATION OF 88 VDC POWER.							
	CORRECTIVE ACTION-PERSONNEL CAUTIONED TO USE EXTRA CARE WHEN CHECKING THESE SWITCHES AND WHEN APPLYING POWER.						000833
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSUDC TLM CANISTER ERS	AR141-0-1-121/FC-4CO-02-121	COMPOSITE-FACTORY 27-11541-860	121D 011209		YES BENDIX NO		
FAILURE MODE-TOLERANCE. TELEMETRY MEASUREMENT 854R (VAM RATE GYRO SIG.) INDICATED 0 PERCENT ISM WHEN 40 PERCENT ISM WAS EXPECTED.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED.							
CORRECTIVE ACTION-THE R.F. PACKAGE WAS REMOVED AND REPLACED. THE PROBLEM DID NOT RECUR AT COMPONENT LEVEL TESTS.							001471
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSUDC OSCILLATOR/POTENTIOMETER ERS	A-90-24-224-F	FAR 27-01808-7	011206	ETR	YES BENDIX NO 1050263-6-6-A		
FAILURE MODE-OPEN (ELECT). NO OUTPUT VOLTAGE. FAILURE DUE TO AN INTERMITTENT SLIDER CONTACT ON POTENTIOMETER R2.							
	CORRECTIVE ACTION-VENDOR IMPROVED QUALITY CONTROL AND INSPECTION PROCEDURES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSUDC SUBCARRIER OSCILLATOR ERS	A-90-24-227-F	FAR 27-01808-87	011207	AMR	YES BENDIX NO 1050263-10TA		
FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR COULD NOT BE ADJUSTED TO WITHIN SPECIFICATION. FREQ WAS OUT OF TOLERANCE BUT AFTER OSCILLATOR WAS TUNED PER SPEC THE FAILURE COULD NOT BE DUPLICATED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DC AMPLIFIER-WIRING ERS	A-98-24-222-F A-98-24-210-F	FAR 87-01841-1	35E 611801	ETR	YES NO	YES MAYBERRY	991998
FAILURE MODE-FAIL DURING OPERATION. REJECTED AS THE CAUSE OF NO OUTPUT VOLTAGE ON CHANNEL A SEGMENT 29. FAILURE CONFIRMED. CAUSE-COLD SOLDER CONNECTION AT JUNCTION OF 98, R16, R17 AND C10.							
CORRECTIVE ACTION-VENDOR NOW EMPLOYING IMPROVED SOLDERING AND INSPECTION TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TAPE RECORDER-AMPLIFIER ERS	AE81-1190/P3-502-00-35	FLIGHT	35E 611801	13	YES NO		997435
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME- NO USABLE DATA WAS OBTAINED FROM THE DELAYED TRANSMISSION TELEMETRY SYSTEM.							
SYSTEM EFFECT-OPERATION DOES NOT START-THE MISSILE WAS LAUNCHED WITH THIS TELEMETRY SYSTEM (RE A) IN THE NO-GO CONDITION. THE PROBLEM WAS ISOLATED TO THE TAPE RECORDER AND PLAYBACK REPRODUCER AMPLIFIER SINCE AN UNMODULATED CARRIER SIGNAL WAS RECEIVED BY GROUND STATION RECEIVERS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TAPE RECORDER-AMPLIFIER ERS	AA61-0202/P3-502-00-35	COUNTDOWN	35E 611801	13 -420	YES NO	YES BENDIX	994041
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. DURING LAUNCH COUNTDOWN THE RFA TELEMETRY PACKAGE FAILED TO MODULATE THE CARRIER FREQUENCY. CAUSE WAS MOST LIKELY DUE TO FAILURE IN THE AIRBORNE TAPE RECORDER AND PLAYBACK AMPLIFIER.							
SYSTEM EFFECT-OPERATION DOES NOT START. NO VALID DATA WAS RECEIVED FROM THE RFA TELEMETRY PACKAGE. 12 MEASUREMENTS WERE LOST DURING FLIGHT.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NONE. THE VEHICLE WAS LAUNCHED WITH FA INOPERATIVE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR GEAR MOTOR BRUSHES ERS	A-98-24-210-F	FAR	35E 611801	AMR	YES NO	YES REED REESE NO 1086485-75	
FAILURE MODE-STRUCTURAL. MOTOR FAILED TO OPERATE. FAILURE CONFIRMED. CAUSE-EXCESSIVE BRUSH WEAR FILLING THE MOTOR W							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
1TH CARBON DUIT.						
CORRECTIVE ACTION-EFFECTIVE 1 DECEMBER 1961. THESE UNITS ARE BEING REPLACED WITH BENDIX MONTROSE TYPE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSOSC COMMUTATOR SEARMOTOR BRUSHES ERS	A-92-81-218-F	PAN	33C 611801	AMR	YES REED AND REESE NO	1006483-48
FAILURE MODE-STRUCTURAL. MOTOR FAILED TO OPERATE. FAILURE CONFIRMED. CAUSE-EXCESSIVE BRUSH WEAR FILLING THE MOTOR W ITH CARBON DUIT.						
CORRECTIVE ACTION-EFFECTIVE 1 DECEMBER 1961 THESE UNITS ARE BEING REPLACED BY BENDIX MONTROSE TYPE.						
INSTRUMENTATION-A/B TELEMETRY 1.1 AND TRANSOSC R.F. AMPLIFIER CAPACITOR ERS	A-98-21-182F	PAN	611800	ETR	YES BENDIX NO	
FAILURE MODE-FAIL DURING OPERATION. PLATE CURRENT WAS REPORTED IN EXCESS OF 300 MA. AND THE GRID CURRENT WAS ZERO. FAILURE CONFIRMED. CAUSE, DETUNING OF GRID CAPACITOR C-2 AND PLATE TANK CAPACITOR C-8 SINCE CALIBRATED. UNIT WAS TUNE D AND OPERATED SATISFACTORILY.						
CORRECTIVE ACTION-IT WAS RECOMMENDED THAT SITE PERSONNEL TUNE THE RF AMP. PER 27-01220 SHEET 2 PRIOR TO CHECKOUT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSOSC COMMUTATOR ERS	8P-90-24-204-F	PAN	1100 61130	WTR	YES NO	
FAILURE MODE-FAIL DURING OPERATION. PIN BECAME LOOSENED OR DISLOOGEED FROM PLUG HOUSING AND WAS MISSING. PINS IN PLU G PINS WERE NOT SECURELY FASTENED IN PLACE AS SLEEVE HAD BECOME DISLOOGEED AND WAS MISSING. A FORCE OF LESS THAN 3 LBS WOULD REMOVE PINS.						
CORRECTIVE ACTION-RECOMMEND REDESIGN OF HARNESS BUT CONSIDERANT DESIGN GROUP STATED ONLY SIX MORE MISSILES ARE INVOLV ED AND DIFFICULTY CAN BE OVERCOME BY EXERCISING ADDITIONAL CARE IN INSTALLATION. HARNESS HAS BEEN REDESIGNED FOR LAT ER VEHICLES. (8M27-0008-181000).						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-POTENTIOMETER ERR	A-98-24-210-F 27-01808-33	FAR 27-01808-33	33C 011129	AMR	YES NO	BENDIX MO 1032094-A-6-A
FAILURE MODE-OUT OF TOLERANCE. UNIT INDICATED 1 VOLT OF NOISE WITH PEAKS UP TO 4.0V. FAILURE CONFIRMED. CAUSE-INTERMITTENT WIPER OF POTENTIOMETER REQ.						
CORRECTIVE ACTION-VENDOR INFORMED. EFFECTIVE SEPT. 1960 ALL POTENTIOMETERS WILL BE TORTURE TESTED PRIOR TO SHIPMENT. TORTURE TEST INCLUDES TEMP. CYCLING, SHOCK AND VIBRATION REACTION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR GEAR MOTOR BRUSHES ERR	A-98-24-210-F 27-01808-33	FAR 27-01808-33	33C 011129	AMR	YES NO	REED REESE MO 1096405-38
FAILURE MODE-STRUCTURAL. MOTOR FAILED TO OPERATE. FAILURE CONFIRMED. CAUSE-EXCESSIVE BRUSH WEAR PILLING THE MOTOR HOUSING WITH CARBON DUST.						
CORRECTIVE ACTION-EFFECTIVE 1 DECEMBER 1961 THESE UNITS ARE BEING REPLACED WITH BENDIX MONTROSE TYPE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERR	A-98-24-220-F 27-01808-33	FAR 27-01808-33	4F 011129	AMR	YES NO	BENDIX MO 1069093-18-6
FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR COULD NOT BE ADJUSTED TO WITHIN SPECIFICATION. FAILURE CONFIRMED BUT CAUSE WAS NOT DETERMINED.						
CORRECTIVE ACTION-NONE. CAUSE OF FAILURE NOT DETERMINED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR GEAR MOTOR BRUSHES ERR	A-98-24-220-F 27-01808-33	FAR 27-01808-33	4F 011129	AMR	YES NO	REED AND REESE MO 1096403-38
FAILURE MODE-STRUCTURAL. UNIT STOPPED DURING A TANKING EXERCISE. FAILURE CONFIRMED. CAUSE-EXCESSIVE BRUSH WEAR FILLING THE MOTOR HOUSING WITH CARBON DUST.						
CORRECTIVE ACTION-EFFECTIVE 1 DECEMBER 1961 THESE UNITS ARE BEING REPLACED WITH BENDIX MONTROSE TYPE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC WIRING CABLE	AASL-0149/P1-8CO-01-04	COMPOSITE-J FACT	4F 011113	11	YES NO	
<p>FAILURE MODE-ELECTRICAL SHORT, CHANNEL 27 OF THE ABC (PITCH STEERING RESOLVER) READ ZERO OUTPUT DURING GIMBAL TRAVE L. DETERMINED TO BE A SHORT IN TELEMETRY CABLE 30RJB.</p> <p>SYSTEM EFFECT-NONE.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-ABC 8/M 7130047 WAS REPLACED. CHECKOUT INDICATED THE NEW UNIT HAD THE SAME PROBLEM AND FURTHER IN VESTIGATION REVEALED THAT TELEMETRY CABLE 30RJB WAS SHORTING THE CHANNEL TO GROUND.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER-CHANGEOVER SWIT	8P-90-24-203-F CH	FAR 27-12390-80	1140 011110	WTR	YES NO	
<p>FAILURE MODE-FAIL DURING OPERATION. POWER CHANGEOVER SWITCH BECAME INOPERATIVE. SWITCH A-13 FAILED OPEN AS GEAR AND SHAFT DRIVING SWITCHING SECTION DISENGAGED FROM MOTOR DRIVE GEAR. BALL BEARING ON END OF SHAFT DISINTEGRATED. MOTOR BRUSH SPRING WAS LOOSE. FURTHER ANALYSIS STOPPED AS PART RELEASED BACK TO VAFB.</p>						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER, POWER CHANGEOVE	8P-90-24-203-F R SWITCH	FAR 27-12390-80	1140 011110	PMR	YES NO	
<p>FAILURE MODE-STRUCTURAL. POWER CHANGEOVER SWITCH FOUND INOPERATIVE FROM INTERNAL TO EXTERNAL POWER. FAILURE DUE TO DISINTEGRATED BALL BEARING IN MOTOR CIRCUIT OF AIS CHANGEOVER SWITCH CAUSE OF DISINTEGRATED BALL BEARING NOT DETERMI NED.</p> <p>CORRECTIVE ACTION-NONE. HOWEVER, RELIABILITY IS TO KEEP SIGNAL CONDITIONER UNDER SURVEILLANCE FOR FUTURE FAILURES OF THIS TYPE TO DETERMINE IF ANY FUTURE CORRECTIVE ACTION IS NECESSARY.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-TUBE	8A-98-24-197-F	FAR	1170 011109	ETB	YES BENDIX NO 1041968-4-Z	
<p>FAILURE MODE-DRIFT, OSCILLATOR DRIFTED OUT OF BAND DURING CHECKOUT. A CRITICAL CONTROL CIRCUIT PLUS THE EFFECTS OF PART ASSEMBLY IS TO 3 YEARS) COMBINED TO CAUSE THIS TYPE OF FAILURE. TUBE V1, TYPE 6111.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-IT WAS RECOMMENDED THAT THE PART BE REFURNISHED. THIS TYPE OSCILLATOR IS VERY SENSITIVE AND WAS O BUILT FOR SHORT TERM STABILITY.						
INSTRUMENTATION-A/B	A-98-24-207-F	FAR	32C	AMR	YES	
TELEMETRY SET AND TRANSDUC	TELEMETRY SET AND TRANSDUC TRANSDUCER POWER SUPPLY, DIODE	27-11327-3	611109		NO	
ERS						
FAILURE MODE-ERRATIC OPERATION. VOLTAGE ON 5 VOLT SECTION DROPPED FROM 5 TO 2.2 VOLTS. FAILURE CAUSED BY FAULTY ZEN ER DIODE TYPE 650C. CAUSE OF DIODE FAILURE NOT DETERMINED BUT BELIEVED DUE TO HIGH AMBIENT TEMPERATURE.						
CORRECTIVE ACTION-NONE. FIRST KNOWN FAILURE OF THIS TYPE.						
INSTRUMENTATION-A/B	MC-98-24-193-F	FAR	611107	ETR	YES	TEXAS INSTRUME
TELEMETRY SET AND TRANSDUC	TELEMETRY SET AND TRANSDUC TRANSMITTER HARNESS	55-01149-3			NO	MT
ERS						
FAILURE MODE-ELECTRICAL SHORT. OUTPUT DROPPED DURING CHECKOUT BECAUSE TRANSISTOR 8109 AND RESISTOR R187 FAILED POSS IBLY DUE TO A WEDGED WIRE SHORTING AND OPENING LEADS. INSULATED SLEEVING ON THIS WIRE WAS SHORT.						
CORRECTIVE ACTION-VENDOR WAS NOTIFIED OF POSSIBLE SHORT SLEEVE PROBLEM. VENDOR ASSEMBLY AND INSPECTION PERSONNEL WE RE CAUTIONED AS OF 26 JANUARY 1962.						
INSTRUMENTATION-A/B	AAS1-1186/P4-4CO-02-93	COMPOSITE-J FACT	93D	14	YES	TEXAS INST.
TELEMETRY SET AND TRANSDUC	TELEMETRY SET AND TRANSDUC CRYSTAL RECTIFIER	27-12290-903	611106		NOT STAT NO	
ERS				ED		
FAILURE MODE-ELECTRICAL OPEN. CRYSTAL RECTIFIER IN RF PACKAGE HAD AN OPEN CIRCUIT.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. MEASUREMENT ES1V DID NOT ACTIVATE CAUSING LOSS OF 400 CYCLE PHASE A VOLTAGE ATA.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-CORRECTED AFTER TEST.						
INSTRUMENTATION-A/B	A-98-24-203-F	FAR	611106	AMR	YES	
TELEMETRY SET AND TRANSDUC	TELEMETRY SET AND TRANSDUC POWER SUPPLY, TRANSISTOR	27-12412-1			YES	
ERS						
FAILURE MODE-FALL DURING OPERATION. NO 140 OR 20 VOLT OUTPUT INDICATED. FAILURE DUE TO FAULTY TRANSISTORS 81 (2N438						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
1, 02 (EN1131), AND 03 (1338). TRANSISTOR FAILURE DUE TO EXCESSIVE VOLTAGE BEING APPLIED TO POWER SUPPLY RESULTING IN EXCESSIVE CURRENT WHICH BURNED THE TRANSISTORS.						001896
CORRECTIVE ACTION-NONE. PERSONNEL AT AMR COULD FIND NO EXTERNAL CAUSE FOR FAILURE. UNIT UNDER SURVEILLANCE FOR FUTURE FAILURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	98-24-156-F	FAR 87-01229-3	811100	ETR	YES NO	000823
FAILURE MODE-ERRATIC OPERATION. UNSTABLE PLATE AND GRID CURRENTS NOTED DURING CHECKOUT. SHOCK LOADING COULD INDUCE INTERMITTENT OPERATION. POSSIBLE POOR GROUND CONNECTION NOTED DURING VISUAL INSPECTION.						
CORRECTIVE ACTION-VENDOR REQUESTED TO IMPROVE QUALITY CONTROL. VENDOR ACTION TAKEN 3-31-62.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-BRUSH ERS	RA-98-24-174-F	FAR	1170 811100	ETR	YES REED AND REESE NO 1026485-33	000822
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. MOTOR WOULD NOT RUN WHEN POWER APPLIED DUE TO BRUSH PROBLEM. USE OF POOR QUALITY BRUSHES RESULTED IN EXCESSIVE BRUSH WEAR.						
CORRECTIVE ACTION-MOTORS ARE TO BE REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1961).						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER RESISTOR ERS	AAG1-D163/74-4CO-01-93	COMPOSITE-B FACT 87-12290-803	93D 811031	14 ED	YES TEXAS INST. NOT STAT NO	000824
FAILURE MODE-OUT OF EXPECTED TEST VALUE. VOLTAGE LEVEL CHANGE OF AUTOPILOT CLOCK MEASUREMENT OUTPUT WAS 0.1 VOLT INSTEAD OF 9 VOLTS EXPECTED. TROUBLE FOUND TO BE AN EXTRA RESISTANCE CONNECTED IN CIRCUIT. NOT STATED WHETHER IN CONDITIONER OR HARNESS TO CONDITIONER.						
SYSTEM EFFECT-OPERATION TOO LOW. VOLTAGE LEVEL OF DISCRETE ON/OFF SIGNAL BELOW NORMAL.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-EXTRA RESISTANCE REMOVED AFTER TEST COMPLETED.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRE OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	MO-98-24-188-F TRANSDUCER POWER SUPPLY, TRANSISTO 88-18840-3	FAR	611026	ETR	YES NO		003034
FAILURE MODE-CONTAMINATION. OUTPUT DROPPED FROM 4.8 VOLTS TO 3.7 VOLTS IN 16 SECONDS. CAUSE DUE TO 2 FAULTY TRANSISTORS 8112M436) AND 8412M1044). POSSIBLY CAUSED BY SOLDER SPECK CONTAMINATION.							
CORRECTIVE ACTION-INSPECTION PERSONNEL CAUTIONED TO WATCH PARTICULARLY FOR SOLDER SPECK CONTAMINATION DURING ASSEMBLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	RA-98-24-193-F SUBCARRIER OSCILLATOR TUBE	FAR	1170 611026	AMR	YES NO	BENDIX MO 1041962-4-2	001012
FAILURE MODE-OUT OF TOLERANCE. OUTPUT FREQ COULD NOT BE ADJUSTED WITHIN SPEC. FAILURE DUE TO AGING OF PARTS AND CONTROL TUBE V1 (6111) IN CRITICAL CONTROL CIRCUIT.							
CORRECTIVE ACTION-SINCE OSCILLATOR IS 3 TO 3 YEARS OLD IT WAS RECOMMENDED THAT IT BE REFURBISHED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	RA-98-24-198-F OSCILLATOR TUBE	FAR	1170 611026	ETR	YES NO	BENDIX MO 1041962-3-K	001013
FAILURE MODE-OUT OF TOLERANCE. OUTPUT FREQ COULD NOT BE ADJUSTED WITHIN SPEC. FAILURE DUE TO AGING OF PARTS AND CONTROL TUBE V1 (6111) IN CRITICAL CONTROL CIRCUIT.							
CORRECTIVE ACTION-SINCE OSCILLATOR IS 3 TO 3 YEARS OLD IT WAS RECOMMENDED THAT IT BE REFURBISHED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	AE61-0278/FC-4CO-02-119 SIGNAL CONDITIONER DEMODULATOR	COMPOSITE-FACTORY	1100 611026		YES NO		009413
FAILURE MODE-FAIL DURING OPERATION-MEASUREMENT 883D.YAW DISPLACEMENT GYRO SIGNAL, DID NOT INDICATE A MOVEMENT THROUGH THE TEST. THE YAW DEMODULATOR IN THE SIGNAL CONDITIONER WAS FOUND TO BE FAULTY.							
SYSTEM EFFECT-OPERATION DOES NOT START. NO OUTPUT DATA FROM MEASUREMENT 883D DUE TO FAULTY DEMODULATOR.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED-COMPOSITE WAS REARM.							
CORRECTIVE ACTION-THE SIGNAL CONDITIONER WAS REPLACED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMBINATOR ERR	ARI41-0-3-11/FC-8C0-08-011 COMPOSITE-FACTORY 11P 87-12271-022	COMPOSITE-FACTORY 11P 811023	811023	YES BENDIX NO	YES BENDIX NO	000072	
FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATOR FOR CHANNEL A OF RF NO. 1 OPERATED BELOW THE MINIMUM SPEED ALLOWED. THE RF PACKAGE S/N 108-0087, WAS REMOVED AND REPLACED WITH S/N 108-0088.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE SYSTEM TEST REQUIRED TO SHOW PROPER OPERATION.							
CORRECTIVE ACTION-PACKAGE IN/D AND REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC 3 KC OSCILLATOR ERR	A-9B-24-194-F FAR	811023	ETR	YES BENDIX NO 1050283-8-6A	YES BENDIX NO	004093	
FAILURE MODE-FAIL. DURING OPERATION. CHANNEL 8 THROUGH 8 DEVIATED LOW. OSCILLATOR WAS FOUND OUT OF ADJUSTMENT AND PU ACTIONED ACCEPTABLY WHEN ADJUSTED.							
CORRECTIVE ACTION-FIELD PERSONNEL WERE REQUESTED TO ADJUST THIS TYPE OF OSCILLATOR PER THE BENDIX HANDBOOK.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	9B-24-184-F FAR	1170 811023	ETR	YES BOURNS NO	YES BOURNS NO	001921	
FAILURE MODE-CONTAMINATION. INTERMITTENT OSCILLATION. FAILURE CAUSED BY FOREIGN MATTER UNDER THE WIPER PROBABLY INTRODUCED DURING ASSEMBLY.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR RESISTOR ERR	RA-9B-24-221F FAR	1170 811020	AMR	YES BENDIX NO 1040839-7-T	YES BENDIX NO	001979	
FAILURE MODE-ELECTRICAL OPEN. CHANNEL 7 BECAME ERRATIC AND NOISY DURING COUNTDOWN. FAILURE CONFIRMED. CAUSE-BROKEN LEAD OF RESISTOR R12 AND AGEING OF OSCILLATOR TUBE V1.							
CORRECTIVE ACTION-UNIT WAS 2 TO 3 YEARS OLD AND IT WAS REFURBISHED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-98-24-210-F COMPUTATOR	FAR 87-11848-033	1170 011019	AMR	YES NO	BENDIX	991974
FAILURE MODE-ERRATIC OPERATION. CHANNEL 14 SHOWED SEG 17 AND 21 POSITIVE AND SEG 47 AND 51 NEGATIVE BELOW GATING. C ONCLUDED THAT CAUSE OF FAILURE WAS OTHER PARTS ASSOCIATED WITH COMPUTATOR OR ASSOCIATED CIRCUITS. EVIDENCE OF POOR W ORKMANSHIP AND QUALITY CONTROL WAS DISCOVERED.							
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. EFFORTS BEING MADE TO IMPROVE WORKMANSHIP AND QUALITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ARI41-0-3-11/7C-SCO-01-011 COMPUTATOR	COMPOSITE-FACTORY 87-18878-017	117 011017		YES NO	BENDIX	991974
FAILURE MODE-FAIL TO OPERATE AT THE PRESCRIBED TIME. TLM SEGMENT 51, CHANNEL A OF RF NO. 2 INDICATED ZERO ISW WHILE SEGMENT 21 WHICH IS CONNECTED TO SEGMENT 51 INDICATED THE CORRECT RESPONSE THE RF PACKAGE WAS REMOVED AND REPLACED.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL-TLM SYSTEM DID NOT TRANSMIT CHANNEL A SEGMENT 51 SIGNAL.							
VEHICLE EFFECT-COUNTDOWN OR COMPOSITE DELAYED. POST COMPOSITE SYSTEM TEST REQUIRED TO SHOW PROPER OPERATION OF RF S YSTEM.							
CORRECTIVE ACTION-PACKAGE IR/D AND REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA98-24-193-F CALIBRATOR	FAR 7-18822-8	1170 011017	ETR	YES NO	BENDIX	993407
FAILURE MODE-ERRATIC OPERATION. NEGATIVE/CALIBRATOR SIGNAL OBSERVED TO BE ERRATIC ON ALL DIRECT CHANNELS ON RF-1. FA ILURE WAS NOT CONFIRMED.							
CORRECTIVE ACTION-SITE PERSONNEL REQUESTED TO CHECK ASSOCIATED CIRCUITS TO DETERMINE THAT NO HUMAN ERROR WAS INVOLV ED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-200-F OSCILLATOR-TUBE	FAR	1170 011016	ETR	YES NO	BENDIX 1041982-3-K	
FAILURE MODE-ERRATIC OPERATION. UNIT COULD NOT BE ADJUSTED TO PROPER FREQUENCY DURING CHECKOUT. A CRITICAL CONTROL C IRCUIT PLUS THE EFFECT OF PART AGEING (8 TO 9 YEARS) COMBINED TO CAUSE THIS TYPE FAILURE, TUBE V1, TYPE 6111.							

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-IT WAS RECOMMENDED THAT THIS PART BE REFURNISHED. THIS TYPE OF OSCILLATOR IS VERY SENSITIVE AND W AS DESIGNED FOR SHORT TERM STABILITY.						087491
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC DC DIFFERENTIAL AMPLIFIER ERS	A-98-24-208-F	FAR 27-01841-1	611014	AMR	YES	MAYBERRY NO	091036
FAILURE MODE-ERRATIC OPERATION. OUTPUT PULSES HAD EXTREMELY POOR RISE TIME CHARACTERISTICS. FAILURE NOT CONFIRMED. FAILURE COULD BE DUPLICATED ONLY WITH LOW INPUT VOLTAGE AND THEREFORE IT IS ASSUMED THE UNIT WAS OPERATED WITH LOWER THAN SPECIFIED INPUT VOLTAGE.							
CORRECTIVE ACTION-PERSONNEL REQUESTED TO CHECK INPUT VOLTAGE WHICH SHOULD BE 28 PLUS OR MINUS 2 VDC. ANALYSIS CANCE LLED DUE TO LACK OF FUNDING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-WIRING ERS	BA-98-24-196-F	FAR	1170 611010	ETR	YES	BENDIX NO 1041962-42	087495
FAILURE MODE-ERRATIC OPERATION. UNSTABLE OUTPUT FREQUENCY OCCURRED DURING CHECKOUT. ANALYSIS SHOWED COLD SOLDER JOI NT AT PIN 7 OF TUBE SIX WAS CHANGING MULTIVIBRATOR BIAS. NORMAL OPERATION RESINED WITH REPAIR OF JOINT.							
CORRECTIVE ACTION-VENDOR INCREASED INSPECTION TO MINIMIZE SOLDERING ERRORS BY USING 7-30X MICROSCOPES. ACTION EFPEC TIVE 13, FEB. 1962.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-TUBE ERS	BA-98-24-201-F	FAR	1170 611010	ETR	YES	BENDIX NO 1040659-4-T	087492
FAILURE MODE-ERRATIC OPERATION. UNIT COULD NOT BE ADJUSTED TO PROPER OUTPUT FREQUENCY DURING CHECKOUT. A CRITICAL C ONTROL CIRCUIT PLUS THE EFFECT OF AGEING (2 TO 3 YEARS) COMBINED TO CAUSE THIS TYPE OF FAILURE. TUBE VI, TYPE 5719.							
CORRECTIVE ACTION-IT WAS RECOMMENDED THAT THIS PART BE REFURNISHED. THIS TYPE OF OSCILLATOR IS VERY SENSITIVE AND W AS DESIGNED FOR SHORT TERM STABILITY.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRCRAFT

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR/TUBE ELECTRONIC ERS	A-98-24-1917 A-98-24-1917 A-98-24-1917	FAR	811010	AMR	YES	BEMOIX NO 1041968-3-A	092764
FAILURE MODE-ERRATIC OPERATION. OUTPUT FREQUENCY WAS UNSTABLE. FAILURE CONFIRMED. CAUSED BY INADEQUATE CONTACT OF T HE V1 CONTROL TUBE WITH ITS SOCKET. FAILURE MODE WAS LOST UPON REMOVAL OF V1 AND WHEN REINSERTED, OPERATION WAS NORM AL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR TUBE ERS	RA-98-24-202-F RA-98-24-202-F RA-98-24-202-F	FAR	1170 811010	AMR	YES	BEMOIX NO 1040859-47	091480
FAILURE MODE-OUT OF TOLERANCE. OUTPUT COULD NOT BE ADJUSTED OVER FULL BANDWIDTH. FAILURE DUE TO UNUSUAL EFFECT OF C ONTROL TUBE V1 (1718) ON OSCILLATOR FREQ AND DEVIATION.							
CORRECTIVE ACTION-SINCE THIS OSCILLATOR IS 2 TO 3 YEARS OLD IT WAS RECOMMENDED THAT IT BE REFURBISHED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC WIRING ERS	AAS1-0183/P2-4CO-01-117 AAS1-0183/P2-4CO-01-117 AAS1-0183/P2-4CO-01-117	COMPOSITE-B FACT	1170 811006	12	YES	NO	094046
FAILURE MODE-OUT OF TOLERANCE. WIRING ERROR RESULTED IN A NUMBER OF MEASUREMENTS ON A 2.4 VOLT CHANNEL BEING EXCITE D BY 0.8 VOLT TRANSDUCER POWER SUPPLY.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM MEASUREMENTS INVALID.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC INSTRUMENTATION BEACON ERS	AES1-0872/CDAPS-501-00-50 AES1-0872/CDAPS-501-00-50 AES1-0872/CDAPS-501-00-50	FLIGHT	302 811005	ETR-13	NO	NO	
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. LARGER THAN ANTICIPATED NOISE IN THE ANGLE TRACKING AND LATERAL RAY E DATA WAS RECORDED DURING FLIGHT.							
SYSTEM EFFECT-NONE. THE LARGER THAN ANTICIPATED NOISE HAD NO ADVERSE EFFECT! ON SYSTEM PERFORMANCE.							
VEHICLE EFFECT-NONE.							

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CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI DIF TIME	VENDOR NAME VENDOR PART NO		
CORRECTIVE ACTION-NONE.								007993
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS	98-24-192-F	FAR	611004	ETR	YES	REED AND REESE NO 1096493-48	009020	
	FAILURE MODE-FAILED DURING OPERATION-FAILED DURING CANISTER CHECKOUT DUE TO LOW ROTATIONAL SPEED. A SHAFT BEARING HAD SLIPPED FROM HOUSING. A SHAFT KEEPER WAS MISSING, ONE WRONG END PLATE SCREW USED AND ONE MISSING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-BRUSH ERS	A-98-24-193-F	FAR	25E 610929	ETR	YES	REED AND REESE NO 1096493-68	009304	
	FAILURE MODE-FAIL DURING OPERATION. THE MOTOR FAILED TO START DUE TO EXCESSIVELY WORN BRUSHES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	A981-0148P1-508-00-25	COUNTDOWN	25E 610929	11 -4200	YES NO		009307	
	FAILURE MODE-ERRATIC OPERATION. DURING SECOND LAUNCH ATTEMPT, THE REPLACEMENT RFS TELEMETRY PACKAGE SHOWED NO COMMUNICATION FROM THE CHANNEL E COMMUTATOR.							
SYSTEM EFFECT-ERRATIC OPERATION.								
VEHICLE EFFECT-COUNTDOWN ABORTED. NO SECOND SPARE PACKAGE AVAILABLE FOR IMMEDIATE REPLACEMENT.								
CORRECTIVE ACTION-ABORT COUNTDOWN AND AWAIT DELIVERY OF A SECOND SPARE RFS PACKAGE.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR CIRCUIT BOARD ERS	A-98-24-193-F	FAR	610929	ETR	YES	BENDIX NO TOE44		
	FAILURE MODE-FAIL DURING OPERATION. CHANNELS 1 THRU 10 OF TELEPAR WERE REPORTED NOISY. FAILURE WAS CONFIRMED. CAUSE WAS LOOSE TERMINAL ON THE PRINTED CIRCUIT BOARD.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	DATE DIP TIME	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-VENDOR HAS REPLACED MANUALLY OPERATED SOLDERING EQUIPMENT WITH AIR OPERATED EQUIPMENT CAPABLE OF MICRO ADJUSTMENT. THIS EQUIPMENT AFFORDS A HIGHER UNIFORMITY OF SOLDERING.						091873
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	AE61-0581/FC-4CO-08-083 TLM CANISTER	COMPOSITE-FACTORY	93D	810920	YES NO		090631
FAILURE MODE-OUT OF TOLERANCE. CHANNEL NO. 11 MONITORING MEASUREMENT 8393W (PROGRAMMER CLOCK OUTPUT) DEFLECTED OUT OF BAND WITH EACH PROGRAMMER CLOCK PULSE OUTPUT. THIS CONDITION RESULTED BECAUSE CHANNEL 11 WAS BEING UTILIZED TO MONITOR A SIGNAL OF GREATER THAN 9.0 VDC WITHOUT A VOLTAGE DIVIDER CONDITIONING CIRCUIT.							
SYSTEM EFFECT-OPERATION TOO HIGH.							
VEHICLE EFFECT-NONE- NO RETESTING WAS REQUIRED.							
CORRECTIVE ACTION-CIC 11893 WAS INITIATED TO INSTALL THE APPROPRIATE DIVIDER ON CHANNEL 11 AND WAS ACCOMPLISHED IN THE FIELD PRIOR TO FLIGHT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	AE61-0581/FC-8CO-01-010 DEMODULATOR	COMPOSITE-FACTORY	10F	810920	YES NO		090603
FAILURE MODE-FAIL DURING OPERATION-TLM MEASUREMENT 843D INDICATED TORQUING OF THE YAW DISPLACEMENT GYRO WHEN A TORQUE SIGNAL WAS NOT BEING SENT. THE YAW DEMODULATOR IN THE TLM ACCESSORY PACKAGE WAS FAULTY.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. RE-RUN OF COMPOSITE MADE.							
CORRECTIVE ACTION-THE ACCESSORY PACKAGE WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	A-98-24-208-F COMMUTATOR MOTOR BRUSHES	FAR	25E	810920	YES NO	YES NEED AND REUSE NO 108485-25	091893
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A COMMUTATION WAS SLOW. FAILURE CAUSED BY EXCESSIVE WEAR OF MOTOR BRUSHES.							
CORRECTIVE ACTION-MOTOR BEING REPLACED WITH BENDIX MONTROSE MOTOR EFFECTIVE DEC 81.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SIGNAL CONDITIONER ERR	80-24-1907	FAR 87-12890-8	1030 610920	WTR	YES NO	60/C
<p>FAILURE MODE-FAIL DURING OPERATION. THE -28VDC OUTPUT WAS ONLY -3 TO -5VDC. FAILURE CONFIRMED AND ISOLATED TO THE A-8 TRANSVERTER MODULE. THE A-8 MODULE WOULD FAIL ONLY BELOW PLUS 28VDC INPUT LEVEL. AN URGENT REQUEST FROM VAFB, FOR THE SIGNAL CONDITIONER WAS COMPLIED WITH AND THEREFORE THE REASON FOR THE A-8 MODULE FAILURE WAS NOT DETERMINED.</p> <p>CORRECTIVE ACTION-THIS WAS THE FIRST FAILURE OF THIS NATURE, SINCE THE CAUSE WAS NOT DETERMINED DUE TO SHIPMENT OF THE UNIT TO VAFB, PRIOR TO COMPLETION OF FAR, THIS ITEM WAS KEPT UNDER SURVEILLANCE BY THE RELIABILITY GROUP.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER POWER SUPPLY, RESISTOR ERR	4-98-24-197F	FAR 87-11587-3	610915	ETR	NO NO	
<p>FAILURE MODE-OUT OF TOLERANCE. DURING CHECKOUT AS VOLTAGE OUTPUT COULD NOT BE ADJUSTED TO 5 VDC BY ADJUSTMENT OF RESISTOR R-8. RESISTOR R8 AND DIODE CR13 WERE FOUND TO HAVE FAILED. THEY WERE CONFIRMED AS HAVING BEEN OVERLOADED EXTENSIVELY.</p> <p>CORRECTIVE ACTION-ETR FIELD PERSONNEL WILL TAKE PREVENTIVE MEASURES TO PREVENT FUTURE FAILURES CAUSED BY EXTERNAL OVERLOADING OF THE POWER SUPPLY.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER POWER SUPPLY ERR	4-98-24-197F	FAR 87-11587-3	610915	AMR	YES NO	
<p>FAILURE MODE-FAIL DURING OPERATION. A STABLE 5.0 VDC COULD NOT BE OBTAINED BY ADJUSTMENT OF R-8. FAILURE WAS CONFIRMED. CAUSED BY BURNED RESISTOR R-8 AND OPEN DIODE CR-13. THESE COMPONENTS FAILED BECAUSE THE POWER SUPPLY HAD BEEN OVERLOADED.</p> <p>CORRECTIVE ACTION-AMR PERSONNEL STATED THAT PREVENTATIVE MEASURES WILL BE TAKEN TO PREVENT A RECURRENCE OF THIS TYPE FAILURE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	49-24-181-7	FAR 7-01720-5	87 610911	FACTORY	YES NO	BURNS INC
<p>FAILURE MODE-FAIL DURING OPERATION. FAILED TO INDICATE AT ANY PRESSURE. FAILURE CAUSED BY POOR WORKMANSHIP AND QUALITY CONTROL. RESISTANCE ELEMENT FRAYED ON ONE END. WIRES WERE TOUCHING THE MANORREL CAUSED A SHORT CIRCUIT. OPEN BETWEEN WIPER A AND PIN C DUE TO EXCESSIVE CURRENT WHICH INDICATES THAT CIRCUIT WAS OVERLOADED.</p>						

GENERAL DYNAMICS
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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-VENDOR ALERTED TO IMPROVE WORKMANSHIP AND QUALITY CONTROL.							001022
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERR	A9-24-180F	FAR 7-01720-3	AF 010031	FACTORY	YES	SERVONIC NO	001023
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER FAILED TO INDICATE SIGNAL ARM SHORTED TO GROUND. FAILURE CAUSED BY TRANSducer BEING OUT OF TOLERANCE AND RESISTANCE ELEMENT WAS BADLY WORN AT THE WIPER AREA.							
CORRECTIVE ACTION-NONE, SINCE THIS IS THE FIRST KNOWN FAILURE OF THIS TYPE.							000032
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC HARNESS ERR	90-24-103-F	FAR 27-11390-3	20E 010022	03	YES	NO	
FAILURE MODE-SHORT (ELECTRICAL), DUE TO WIRE SPLICED BEING GROUNDED TO THE SHIELD, ATTRIBUTED TO IMPROPER MANUFACTURE.							
CORRECTIVE ACTION-RAR 98-24-640 REQUESTED QUALITY CONTROL TO IMPROVE CONSTRUCTION TECHNIQUES AND INSPECTION PROCEDURE. CORRECTIVE ACTION CANCELLED 3-20-63 DUE TO LACK OF FUNDING.							000030
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-BRUSH ERR	A-09-24-100-F	FAR	010021	ETR	YES	REED AND REESE NO 1096483-33	
FAILURE MODE-FAILED DURING OPERATION, MOTOR FAILED DURING A SYSTEM CHECKOUT DUE TO A BRUSH PROBLEM.							
CORRECTIVE ACTION-THE MOTOR IS TO BE REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1961.)							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERR	A01-0034/FC-600-01-000	COMPOSITE-FACTORY	AF 010010		YES	NO	
FAILURE MODE-DRIFT, THE RF NO. 2 CHANNEL 0 OSCILLATOR FREQUENCY SHIFTED. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS, SHIFT IN OSCILLATOR FREQUENCY WILL RESULT IN LOSS OF DATA.							PAGE 0350

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SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE	PRI DIP OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING REQUIRED TO SHOW PROPER OPERATION. CORRECTIVE ACTION-THE RP PACKAGE WAS REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	AES1-0289/FC-8CO-04-040	COMPOSITE-FACTORY 40E	610816	YES	BENDIX NO	000305
FAILURE MODE-FAIL DURING OPERATION-TLM MEASUREMENT 0430 INDICATED EXTRANEOUS MOVEMENTS AND TLM MEASUREMENT FZ46P IN DICATED AN OPEN. THE TLM ACCESSORY PACKAGE WAS FOUND TO BE FAULTY AND WAS REPLACED. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. ERRATIC SIGNALS AND AN OPEN FOUND IN TLM SYSTEM. VEHICLE EFFECT-COMPOSITE DELAYED. TLM PACKAGE REPLACED. CORRECTIVE ACTION-ACCESSORY PACKAGE WAS REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS	AAS1-0115/PS-4CO-03-111	COMPOSITE-J FACT 111D	610814	YES	12 NO	003735
FAILURE MODE-OUT OF EXPECTED TEST VALUE. 10 RPS COMMUTATOR MOTOR FOR RPI CHANNELS 15 AND 16 RAN SLOW. SPEED VARIED AS LOW AS 7.5 RPS WHEREAS NOMINAL SPEED IS 10 RPS PLUS OR MINUS 0.5. SYSTEM EFFECT-OPERATION TOO LOW. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-MOTOR WRITTEN UP ON 18043200 AND REPLACED AFTER TEST.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR-TRANSISTOR ERS	HC-98-24-177P	FAR 7-12222-5	610810	YES	ETR NO	000278
FAILURE MODE-FAIL DURING OPERATION. DURING A J-FACT TEST, THE CALIBRATION PULSE WAS ON CONTINUOUSLY. THE TRANSISTOR WAS CONTAMINATED AND COULD BE MADE TO OPERATE INTERMITTANTLY UNTIL IT FAILED COMPLETELY AFTER ONE HOUR. CORRECTIVE ACTION-RAN HC-98-24-177P/COMMENCED IMPROVE QUALITY CONTROL. INSPECTION SUPERVISION AND PERSONNEL WERE SHOWN PHOTOGRAPHS OF DEFECTIVE WORKMANSHIP.						

WAFB G.100

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTM	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC CALIBRATION-WIRING ERS	MS-88-24-178P CALIBRATION-WIRING	PAR 7-12888-S	98D 810810	STR	YES NO		888881
FAILURE MODE-FAIL DURING OPERATION. CALIBRATION OUTPUT FAILED DURING J-PACT TEST DUE TO TRANSISTOR 8 9 SHORTING TO C ARE CAUSED BY FAULTY SOLDERING AND TWO RESISTORS WHICH HAD CHANGED IN VALUE.							
CORRECTIVE ACTION-PAR MS-88-24-832 REQUESTED IMPROVED QUALITY CONTROL AND WORKMANSHIP. INSPECTION SUPERVISION AND P PERSONNEL WERE SHOWN PHOTOGRAPH OF DEFECTIVE WORKMANSHIP.							
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC COMMUNICATOR MOTOR ERS	AS81-0111/MS-7CWO-03-104/CE COMMUNICATOR MOTOR	COMPOSITE-PRD/DPL	104D 810810	30A	YES NO		884781
FAILURE MODE-OUT OF SPECIFICATION. THE CHANNEL E COMMUNICATOR VARIED IN SPEED FROM 20 TO 21 RPS. NOMINAL SPEED IS 30 RPS.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-REPLACE COMMUNICATOR MOTOR.							
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	AS81-0275/FC-4CO-02-118 OSCILLATOR	COMPOSITE-FACTORY	118D 810808		YES NO		888780
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 8 OSCILLATOR HAD SHIFTED FREQUENCY.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. THE TLM OSCILLATOR FOR CHANNEL 8 HAD SHIFTED FREQUENCY.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST COMPOSITE TEST REQUIRED AFTER REPAIR OF TLM RF PKG.							
CORRECTIVE ACTION-TLM PKG REMOVED FOR REPAIR.							
INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUC CALIBRATION W-RELAY ERS	AS81-0275/FC-4CO-01-118 W-RELAY	COMPOSITE-FACTORY	118D 810808		YES NO		
FAILURE MODE-FAIL DURING OPERATION. TLM MEASUREMENT 8880 INDICATED ZERO 15W THRU OUT THE TEST. THE SIGNAL WAS NOT RECEIVED BY THE CHANNEL OSCILLATOR BECAUSE OF A FAULTY PRE-FLIGHT CALIBRATION RELAY IN THE ACCESSORY PACKAGE.							
SYSTEM EFFECT-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-COMPOSITE RESCHEDULED.							099791
CORRECTIVE ACTION-THE ACCESSORY PACKAGE WAS REMOVED FROM THE MISSILE AND WAS REPAIRED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CARISTER ERS	A481-0103/P4-4CNO-08-104/C8	COMPOSITE-PRD/DPL 104D 910804	ETH-384 -810	YES NO			094790
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. TELEMETRY WOULD NOT GO INTERNAL ON COMMAND. TEST WAS RUN ON EXTREME.							
SYSTEM EFFECT-OPERATION DOES NOT START.							
VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD TIME 8 MINUTES.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMUTATOR-BRUSH ERS	A-88-24-170-F	FAR	21-E 910728	ETR NO	YES REED AND REESE NO 1098483-48		090689
FAILURE MODE-FAIL DURING OPERATION. THIS MOTOR FAILED TO OPERATE DURING A COUNTDOWN. MOTOR FAILURE WAS DUE TO A BRUSH PROBLEM.							
CORRECTIVE ACTION-THE MOTOR IS TO BE REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE 14 DECEMBER 1981.)							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	98-84-114	FAR 27-01888-7	21-E 910728	ETR NO	NO BENDIX NO		097481
FAILURE MODE-ERRATIC OPERATION. EXCESSIVE NOISE DETECTED DURING COUNTDOWN-FAILURE COULD NOT BE CONFIRMED IN FACTORY COMPONENT CHECKOUT.							
CORRECTIVE ACTION-NONE-FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	A481-0084/P1-801-00-81	COUNTDOWN	21F 910728	11 NO	YES NO		
FAILURE MODE-FAIL DURING OPERATION-AT 1-70 MINUTES, THE 8 KPS COMMUTATION ON CHANNELS 18 AND 19 BY NO.1 WAS LOST. AFTER BY NO. 1 WAS CHANGED, CHANNEL 18 APPEARED AT THE NEGATIVE GATING LEVEL ALSO 8PS CHANNELS 6 AND 7 WERE NOISY.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							093751
VEHICLE EFFECT-COUNTDOWN DELAYED-A HOLD WAS CALLED TO REPLACE RF NO. 1.							
CORRECTIVE ACTION-BOTH PACKAGES REPLACED PRIOR TO LAUNCH.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-TUBE ERS							098091
	98-24-144	FAR	1110	ETR	YES	BENDIX	
	TELEMETRY SET AND TRANSDUC OSCILLATOR-TUBE	7-01488-881	610727		NO		
FAILURE MODE-SHORT (ELECT) DISCOVERED IN FREQUENCY CONTROL TUBE CAUSE OF FAILURE NOT CONCLUSIVELY DETERMINED.							
CORRECTIVE ACTION-NONE. FIRST KNOWN PROBLEM OF THIS TYPE. NO ACTION CONSIDERED NECESSARY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMUTATOR-BRUSH ERS							098087
	AS-98-24-171-F	FAR	1110	ETR	YES	NEED AND REESE	
	TELEMETRY SET AND TRANSDUC COMUTATOR-BRUSH		610726		NO	1096493-48	
FAILURE MODE-FAIL DURING OPERATION. MOTOR FAILED DURING A COUNTDOWN DUE TO A BRUSH PROBLEM.							
CORRECTIVE ACTION-THE MOTOR IS TO BE REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1961.)							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMPOSITE SIGNAL AMPLIFIER-TRANSIS ERS							098082
	98-24-143	FAR	610726	FACTORY	YES	BENDIX	
	TELEMETRY SET AND TRANSDUC COMPOSITE SIGNAL AMPLIFIER-TRANSIS	27-01279-1			NO		
FAILURE MODE-ERRATIC OPERATION-EXCESSIVE NOISE WAS GENERATED BY DEFECTIVE TRANSISTOR. A SOLDER SPLASH INSIDE THE TRANSISTOR CASE LEAD FORMED A CAPACITIVE LINK WITH THE TRANSISTOR CASE.							
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO PERFORM 100 PERCENT FLUOROSCOPIC EXAMINATION AND 100 PERCENT ELECTRICAL TESTING OF THE TRANSISTORS PRIOR TO INSTALLATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS							
	AA61-0083/P3-6CO-01-08	COMPOSITE-B FACT	27	ETR-13	YES		
	TELEMETRY SET AND TRANSDUC TLM CANISTER		610726		NO		
FAILURE MODE-OUT OF TOLERANCE. TLM S DISPLAYED NOISY RF OUTPUT. (NO FURTHER DATA).							

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
SYSTEM EFFECT-ERRATIC OPERATION. DATA WAS OBTAINED BY NOISE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-CANISTER REMOVED AND SENT TO TLM LAB WHERE PROBLEM WAS CORRECTED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER END	9K-24-145	FAR 87-01843-7	19C 610784	FAB	NO YES	NO SOURNS
FAILURE MODE-ERRATIC OPERATION. THE FUEL TANK PRESSURE INDICATION DROPPED ABRUPTLY FROM A NORMAL 17 TO 18 PSIG TO 7 TO 8 PSIG AND LATER RETURNED TO 17 TO 18 PSIG WHERE IT STABILIZED. IT WAS CONCLUDED THAT THE CAUSE WAS EXTERNAL TO THE TRANSDUCER.						
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-BRUSH END	A-9B-24-172-F	FAR	21E 610720	ETR	YES NO	REED AND REESE NO 1198485-45
FAILURE MODE-FAIL DURING OPERATION. THE MOTOR FAILED DURING COUNTDOWN DUE TO A BRUSH PROBLEM.						
CORRECTIVE ACTION-THE MOTOR IS TO BE REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1961.)						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR END	HC-9B-24-151-F	FAR	410717	ETR	YES NO	BENDIX NO 1040639-107
FAILURE MODE-ERRATIC OPERATION. UNSTABLE OUTPUT FREQUENCY AND NOISY OUTPUT DURING VIBRATION. CAUSED BY BROKEN WIRE AT PIN 13 AND A GROUND WIRE AT PIN 1 OF TUBE #1.						
CORRECTIVE ACTION-VENDOR WAS NOTIFIED OF POOR WORKMANSHIP. VENDOR ACKNOWLEDGED THAT STEPS WERE BEING TAKEN TO PRECLUDE REOCCURRENCE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR END	AG-9B-24-188-F	FAR	1110 610718	ETR	NO NO	REED AND REESE NO 1086485-37
FAILURE MODE-ERRATIC OPERATION. MOTOR WAS SLOW AND ERRATIC DURING A SYSTEM CHECKOUT.						

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PHI OTH	VENDOR NAME VENDOR PART NO	
							000049
	CORRECTIVE ACTION-FAILURE COULD NOT BE DUPLICATED DURING ANALYSIS. THE MOTOR IS TO BE REPLACED WITH A BEMOIX MONTRO SE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1961.)						
	INSTRUMENTATION-A/B A61-0438/FC-6CO-08-008 COMPOSITE-FACTORY 8F YES TELEMETRY SET AND TRANSDUC OSCILLATOR 610714 NO ERS						
	FAILURE MODE-OUT OF TOLERANCE. CHANNEL NO. 4 OF RF NO. 2 INDICATED AN OUT OF TOLERANCE READING FOR MEASUREMENT 1330 V. IT WAS FOUND THAT THE OSCILLATOR CENTER FREQUENCY HAD CHANGED. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. IMPROPER DATA TRANSMITTED. VEHICLE EFFECT-COMPOSITE DELAYED. ADDITIONAL POST-COMPOSITE TESTING PERFORMED. CORRECTIVE ACTION-THE RF PACKAGE WAS REMOVED AND REPAIRED.						
	INSTRUMENTATION-A/B A-98-24-173-F FAR 610705 ETR NO REED AND REESE TELEMETRY SET AND TRANSDUC COMMUTATOR NO 1006485-38 ERS						
	FAILURE MODE-ERRATIC OPERATION. INTERMITTENT OPERATION OCCURRED DURING SYSTEM CHECKOUT. CORRECTIVE ACTION-FAILURE COULD NOT BE CONFIRMED BUT EXCESSIVE ERODED BRUSH MATERIAL WAS FOUND. MOTORS ARE TO BE RE PLACED WITH A BEMOIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1961.)						
	INSTRUMENTATION-A/B A61-0233/FC-6CO-01-008 COMPOSITE-FACTORY 5F YES BEMOIX TELEMETRY SET AND TRANSDUC TLM CANISTER 610701 NO ERS						
	FAILURE MODE-OUT OF TOLERANCE. MEASUREMENT 1330V INDICATED 100 PERCENT ISM ON THE COMMUTATED CHANNEL WHEN THE CONTINUOUS CHANNEL INDICATED 72 PERCENT. A MAXIMUM DEVIATION OF 9 PERCENT OF THE FORMER IS PERMITTED. SYSTEM EFFECT-MORE. CONTINUOUS SIGNAL IS BACKED UP BY THE COMMUTATED SIGNAL. VEHICLE EFFECT-COMPOSITE RESCHEDULED. COMPOSITE RETEST PERFORMED. CORRECTIVE ACTION-THE TLM PACKAGE WAS REPAIRED.						
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GENERAL DYNAMICS
CONVAIR DIVISION

10 JUN 1960

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI DIF TIME	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	A661-0203/FC-8CO-01-008	COMPOSITE-FACTORY	5F 610701	ETR-13	YES	BENDIX NO
FAILURE MODE-FAIL DURING OPERATION. THE MASTER PULSE FOR CHANNEL C OF RF NO 1, INDICATED 0 PERCENT ISM WHEN 100 PER CENT ISM WAS EXPECTED.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. THE MASTER PULSE FOR CHANNEL C WAS NOT PROPER AND WOULD MAKE DATA RETRIEVAL EXTREMELY HARD.						
VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE TESTS REQUIRED TO DEMONSTRATE PROPER OPERATION.						
CORRECTIVE ACTION-THE RF PACKAGE WAS REMOVED AND REPAIRED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	98-24-130	FAR 27-01269-11	22C 610630	ETR	YES	BENDIX NO
FAILURE MODE-FAILED DURING OPERATION. OSCILLATOR WAS REJECTED FOR NO CHANNEL 8 SUBCARRIER SIGNAL. THE FAILURE COULD NOT BE CONFIRMED.						
CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC FILTER ASSEMBLY, WIRING ERS	98-24-142	FAR 27-12300-1	81088	FACTORY	YES	NO
FAILURE MODE-OPEN (ELECTRICAL). THE OUTPUT VOLTAGE CONTROL POTENTIOMETER WAS FOUND OPEN DUE TO SOLDER CONNECTION PULLING LOOSE.						
CORRECTIVE ACTION-PERSONNEL WERE ALERTED TO MAINTAIN SURVEILLANCE ON THIS PART IN AN EFFORT TO DETECT A RECURRENCE OF THIS FAILURE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC R.F. SWITCH ERS	98-24-139-F	FAR	111D 610888	ETR	YES	TRANSCO PRODUC NO TS CO. 11300-80
FAILURE MODE-OPEN (ELECTRICAL). SWITCH WOULD NOT OPERATE DUE TO CORROSION AND AN OPEN COIL AT THE POSITIVE TERMINAL CAUSED BY AN INADEQUATELY SEALED UNIT.						

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CONVAIR DIVISION

18 JUN 1986

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE DIF TIME DIF	PRI DIF TIME DIF	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO PROVIDE IMPROVED SEALING OF THE COAXIAL CONNECTOR.						
INSTRUMENTATION-A/S 98-24-139 PAR 82E ETR YES TELEMETRY SET AND TRANSDUC HARNESS 810828 NO ERS						
FAILURE MODE-OPEN (SELECT) THE HARNESS FAILED A PULL TEST RESULTING IN BREAKING OF VARIOUS STRANDS. FAILURE IS ATTRIBUTED TO POOR WORKMANSHIP.						
CORRECTIVE ACTION-UNKNOWN. INSPECTION WAS INSTRUCTED TO ASSURE THAT DISCREPANCIES OF THIS TYPE DO NOT OCCUR AGAIN.						
INSTRUMENTATION-A/S A-49-24-187-F FAR 810823 8AN D/F6 YEL REED AND REESE TELEMETRY SET AND TRANSDUC COMMUTATOR-BRUSH NO 1089483-58 ERS						
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. MOTOR WOULD NOT START DURING CHECKOUT DUE TO POOR BRUSH CONTACT CAUSED BY EXCESSIVE BRUSH WEAR. A POOR QUALITY BRUSH INITIATED FAILURE.						
CORRECTIVE ACTION-THE MOTOR IS TO BE REPLACED WITH A BENDIX MONTROUSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1981.)						
INSTRUMENTATION-A/S AE81-0013/FC-4CO-010-008 COMPOSITE-FACTORY 88D YES TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR 810820 NO ERS						
FAILURE MODE-OUT OF TOLERANCE. CHANNELS A, C AND E COMMUTATOR MOTOR INDICATED VARIATIONS IN SPEED. NOISE OF UP TO 8 PCT ISM OCCURRED ON CHANNELS A AND C.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED.						
CORRECTIVE ACTION-THE COMMUTATOR MOTOR WAS REPLACED AND COMMUTATOR ASSEMBLY WAS CLEANED. DURING SUBSEQUENT TESTS THE MOTOR AGAIN FAILED AND WAS REPLACED.						
INSTRUMENTATION-A/S 98-24-137 FAR 87-01889-41 17C ETR YES BENDIX TELEMETRY SET AND TRANSDUC OSCILLATOR 810820 NO ERS						
FAILURE MODE-ERRATIC OPERATION. DURING SYSTEM CHECKOUT THE OSCILLATOR OUTPUT VOLTAGE WAS LOW AT THE CENTER FREQUENCY. CAUSE NOT DETERMINED.						

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	QIF DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							003003
	CORRECTIVE ACTION-NONE.						
							000439
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A661-0282/FC-8CO-08-004 COMPOSITE-FACTORY 4P 610616				YES NO		
FAILURE MODE-ELECTRICAL SHORT. THE NEGATIVE PEDESTAL OF RF. NO. 1 CHANNEL 12 WAS 10 PERCENT OF BAND WIDTH. A VALUE OF 20 PERCENT IS EXPECTED.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL-PARTIAL SHORT OF TLM COMMUTATOR CAUSED LAM SIGNAL OUTPUT.							
VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE TESTING REQUIRED TO DEMONSTRATE PROPER OPERATION.							
CORRECTIVE ACTION-THE CAPACITOR WAS REMOVED AND A PARTIAL SHORT WAS CLEARED FROM THE COMMUTATOR ASSEMBLY.							
							000305
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-131-F FAR 610612		17E 610612	ETR	YES REED AND REESE NO 1006483-35		
FAILURE MODE-FAIL DURING OPERATION. NO INDICATION OF CHANNEL 10 COMMUTATOR ROTATION DURING SYSTEM CHECKOUT DUE TO P OR BRUSH CONTACT DUE TO IMPROPER POSITION OF THE BRUSH SPRING.							
CORRECTIVE ACTION-PROCESS OF REPLACING THESE MOTORS EFFECTIVE DEC. 1961.							
							000342
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-133F FAR 87-12305-809		17E 610608	ETR-11	YES BRINDIX NO		
FAILURE MODE-SHORT (ELECT). COMMUTATOR HAD AN INTERMITTENT SHORT BETWEEN SEGMENTS C47 AND C51. FAILURE NOT CONFIRMED. IT IS PROBABLE THAT A LOOSE WIRE OR A FOREIGN MATTER MAY HAVE BEEN SHORTING THE CIRCUIT IN THE VICINITY OF THE JA CK, WHEREUPON THE PARTICLE BECAME DISLOUSED AFTER TROUBLESHOOTING.							
CORRECTIVE ACTION-UNKNOWN.							
							000439
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	DA493/01-501-00-27 COUNTDOWN 610608		27E 610608	OSIF1	YES NO		
FAILURE MODE-ERRATIC OPERATION-CAUSED BY FEEDBACK OF INSTRUMENTATION SIGNALS INTO THE GUIDANCE SYSTEM COMPUTER.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
	SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.						000200
	VEHICLE EFFECT-COUNTDOWN ABORTED. GUIDANCE FAIL ILLUMINATED RED.						
	CORRECTIVE ACTION-INSTRUMENTATION CHANGED.						
	INSTRUMENTATION-A/B 98-24-13R TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	FAR 27-12251-1	17K 810808	ETR	NO NO	NO BENDIX NO 1092094-76A	000340
	FAILURE MODE-ERRATIC OPERATION. DURING SYSTEM CHECKOUT RT-1 EXHIBITED EXCESSIVE NOISE ON CHANNEL SEVEN. CAUSE WAS 1 RELATED TO THE SUBCARRIER OSCILLATOR. FAILURE NOT CONFIRMED.						
	CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT CONFIRMED.						000534
	INSTRUMENTATION-A/B A681-0274/PC-4CO-03-111 TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	COMPOSITE-FACTORY	1110 810314		YES NO		
	FAILURE MODE-FAIL DURING OPERATION-THE NEGATIVE GATE OF CHANNEL 14, RF NO.1 INDICATED EXCESSIVE DISTORTION THROUGHOUT THE TEST. THIS WAS CAUSED BY A FAULTY NEGATIVE GATE POWER SUPPLY.						
	SYSTEM EFFECT-ERRATIC OPERATION-TLM SYSTEM WOULD TRANSMIT ERRATIC OR DISTORTED SIGNALS.						
	VEHICLE EFFECT-NONE.						
	CORRECTIVE ACTION-POST-ACCEPTANCE REWORK WILL INCORPORATE A FILTER ASSEMBLY TO ALLEVIATE THIS PROBLEM.						007494
	INSTRUMENTATION-A/B 98-24-13R TELEMETRY SET AND TRANSDUC HUBNESS ERS	FAR 27-12256-8	810311	13	YES NO		
	FAILURE MODE-OPEN (ELECTRICAL). FAILURE WAS DUE TO AN OPEN CIRCUIT IN WIRE U211428. THIS WIRE IS BETWEEN PIN AA OF CONNECTOR 108V1P2 AND PIN 1 OF CONNECTOR 100P2. FAILURE OF THE SPLICE WAS CAUSED BY POOR WORKMANSHIP RESULTING FROM THE USE OF AN IMPROPER CRIMPING TOOL.						
	CORRECTIVE ACTION-UNKNOWN.						

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CONVAIR DIVISION

10 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP TIME	PRI OTH	VENDOR NAME VENDOR PA. NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	AA61-0082/P3-SC0-01-10 COMPOSITE-B TACT	10E 610811	13	YES NO		000000
<p>FAILURE: MODE-FAIL DURING OPERATION. COMMUTATION ON RF 1, CHANNEL A LOST DURING TEST. CAUSE UNKNOWN.</p> <p>SYSTEM EFFECT-OPERATION STOPS PREMATURELY. CHANNEL A COMMUTATION STOPPED PREMATURELY.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED. TEST DELAYED TO REPLACE RF 1 PACKAGE.</p> <p>CORRECTIVE ACTION-REPLACE RF 1 PACKAGE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	98-24-100 COMPOSITE-FACTORY	10E 610811	ETR	YES NO	YES NO	000344
<p>FAILURE MODE-FAILED DURING OPERATION. DURING SYSTEMS CHECKOUT THE MOTOR WAS REJECTED FOR FAILURE TO START. ANALYSIS DISCLOSED THAT BOTH BRUSHES WERE WORN SO SHORT THAT THE BRUSH SPRINGS WERE RESTING ON THE TOP EDGE OF BRUSH HOLDER SLOTS. FAILURE WAS CAUSED BY WORN BRUSHES WHICH RESULTED IN THE LOSS OF BRUSH PRESSURE AND INCREASED BRUSH CONTACT RESISTANCE.</p> <p>CORRECTIVE ACTION-CONVAIR IS NOW REPLACING THE ITEM MOTORS WHEN OPERATING TIME EXCEEDS 30 HOURS AND ON A PRIOR TO F LIGHT BASIS BECAUSE OF BRUSH LIFE PROBLEMS.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS	AE61-0274/PC-4CO-01-111 COMPOSITE-FACTORY	1110 610308		YES NO		000336
<p>FAILURE MODE-FAIL DURING OPERATION-THE CHANNEL E COMMUTATOR INDICATED A SPEED OF 38.0 RPM WHEN A MAXIMUM OF 31.5 RPM IS ALLOWABLE. THIS CONDITION WAS ATTRIBUTED TO SPEED VARIATIONS OF THE COMMUTATOR MOTOR.</p> <p>SYSTEM EFFECT-NAME. COMMUTATOR SPEED DID NOT HINDER COMPOSITE EVALUATION.</p> <p>VEHICLE EFFECT-NONE. COMMUTATOR SPEED TO BE ADJUSTED AT THE TIME OF OTHER POST-ACCEPTANCE REWORK.</p> <p>CORRECTIVE ACTION-UNIT IN/D AND REMARKED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS	AE61-0182/PC-SC0-01-038 COMPOSITE-FACTORY	20E 610303		YES NO		000336
<p>FAILURE MODE-ERRATIC OPERATION, RF NO. 3 CHANNEL 11 INDICATED EXCESSIVE COMMUTATOR SPEED VARIATIONS AND CHANNEL 12 INDICATED PERCENT NOISE.</p>						

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1956

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE JIP	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
SYSTEM EFFECT-ERRATIC OPERATION. COMMUTATOR SPEED HAD EXCESSIVE SPEED VARIATIONS.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED. COMPOSITE REMAN.						
CORRECTIVE ACTION-UNIT IR/D AND REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	98-24-128 PAR	15E 810501	YES NO	YES NO	YES NO	YES NO
FAILURE MODE-ERRATIC OPERATION. DURING A COMPOSITE TEST THE MOTOR SLOWED DOWN, STOPPED MOMENTARILY, THEN RESTARTED. DISASSEMBLY DISCLOSED THAT THE MOTOR BRUSHES WERE WORN SO SHORT THAT THE BRUSH SPRINGS WERE RESTING ON THE TOP EDGE OF THE BRUSH HOLDERS. FAILURE WAS CAUSED BY THE WORN BRUSHES AND THE RESULTING LOSS OF POSITIVE CONTACT BETWEEN THE BRUSHES AND COMMUTATOR SEGMENTS.						
CORRECTIVE ACTION-CONVAIR IS NOW RECORDING COMMUTATOR ASSEMBLY OPERATING TIME AND REPLACING COMMUTATOR MOTORS WHEN TOTAL OPERATING TIME EXCEEDS 30 HOURS						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	A481-D063/P1-150-03-1R COMPOSITE-J FACT	12L 810428	YES NO	YES NO	YES NO	YES NO
FAILURE MODE-ERRATIC OPERATION. DURING THE FACT THE 8 RPS COMMUTATOR IN RF NO.1 STOPPED FOR 30 SECONDS AND STARTED AGAIN						
SYSTEM EFFECT-OPERATION STOPA PREMATURELY. THE RF NO. 1 8 RPS COMMUTATOR STOPPED FOR 30 SECONDS DURING THE FACT AND THEN STARTED AGAIN.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-THE RF NO. 1 PACKAGE WAS REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERS	A481-0243/P4-401-00-100 P-12590-3	COMPTDOWN 810123	YES NO	YES NO	YES NO	YES NO
FAILURE MODE-OUT OF EXPECTED TEST VALUE. OUTPUT OF CHANNEL 11 SUBCARRIER OSCILLATOR WAS LOW. DETAILS NOT AVAILABLE.						
SYSTEM EFFECT-OPERATION TWO LOW. CHANNEL 11 OUTPUT BELOW NORMAL LEVEL.						
VEHICLE EFFECT-NONE. RF 1 TELEFAX REPLACED DURING A HOLD CALLED FOR ANOTHER REASON. / IS NOT CLEAR WHETHER OR NOT A SPECIAL HOLD WOULD HAVE BEEN CALLED FOR THIS REPLACEMENT.						
CORRECTIVE ACTION-REPLACE RF 1 TELEFAX.						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-117 SUBCARRIER OSCILLATOR POTENTIOMETER R	FAR 87-12290-3	810418	878	YES NO	BENDIX PACIFIC 1069093-11-3
<p>FAILURE MODE-OUT OF SPECIFICATION. OSCILLATORS WERE REJECTED WHEN THE OUTPUT VOLTAGE COULD NOT BE ADJUSTED WITHIN A SPECIFIED TOLERANCES. THE ADJUSTMENT POTENTIOMETERS REPORTEDLY WERE ABNORMALLY SENSITIVE. THE FAILURES WERE CAUSED BY THE DEFECTIVE R-19 POTENTIOMETERS.</p> <p>CORRECTIVE ACTION-CONVAIR IN CONJUNCTION WITH THE VENDOR HAS PURSUED ALL STOCK AND CANISTERS IN USE, OF OSCILLATORS CONTAINING THE UNRELIABLE POTENTIOMETERS.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AES1-0013/FC-4CO-03-088 CALIBRATOR IN FLIGHT	COMPOSITE-FACTORY 880 810418	NO NO			
<p>FAILURE MODE-ERRATIC OPERATION. IMPROPER PICK-UP IN BATTERY SIMULATOR. THIS CAUSED ERRATIC OPERATION OF TELEMETRY 1 IN FLIGHT CALIBRATOR.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED-KEY CORRECTIVE ACTION-A BATTERY WAS USED AS AN INTERNAL SOURCE TO OBTAIN SATISFACTORY RESULTS.</p> <p>CORRECTIVE ACTION-A BATTERY WAS USED AS AN INTERNAL SOURCE TO OBTAIN SATISFACTORY RESULTS.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AES1-0013/FC-4CO-03-088 TLM CANISTER	COMPOSITE-FACTORY 880 810418	YES NO			
<p>FAILURE MODE-ERRATIC OPERATION. CHANNELS A AND C INDICATED EXCESSIVE DISTORTION ON THE MASTER PULSE. CONDITION WAS STILL PRESENT AFTER REPLACING TELEMETRY CANISTER. THE DISTORTION DID NOT SERIOUSLY AFFECT DATA REDUCTION.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED.</p> <p>CORRECTIVE ACTION-REPLACED TELEMETRY CANISTER.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AES1-0278/FC-9CO-04-085 TLM CANISTER-CONNECTOR	COMPOSITE-FACTORY 880 810401	YES NO			
<p>FAILURE MODE-CONTAMINATION. OPERATION OF NO. 1 CHANNEL 10 INDICATED ERRATIC VARIATIONS AND DISTORTIONS OF UP TO 10 PCT 18W. THESE WERE CAUSED BY METAL PARTICLES IN TELEMETRY PLUG 2PS.</p>						

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-ERRATIC OPERATION.							000000
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED.							
CORRECTIVE ACTION-PLUS EPE WAS CLEANED.							
INSTRUMENTATION-A/B AEG1-0273/FC-SC0-04-028 COMPOSITE-FACTORY 23E FACTORY YES							000000
TELEMETRY SET AND TRANSDUC TLM CANISTER-WIRING 010403 NO							
FAILURE MODE-ELECTRICAL SHORT. CHANNEL 8 OF RF NO. 3 WAS CONNECTED TO SEGMENT 23, CHANNEL 11, RF NO. 3, CAUSING A NEGATIVE SPIKE ON CHANNEL 8 AT EVERY REVOLUTION OF CHANNEL 11 COMMUTATOR.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED.							
CORRECTIVE ACTION-A GROUNDING PISTAIL WAS REMOVED.							000317
INSTRUMENTATION-A/B AEG1-0333/FC-SC0-01-028 COMPOSITE-FACTORY 23E FACTORY YES							
TELEMETRY SET AND TRANSDUC TRANSMITTER 010289 NO							
FAILURE MODE-ERRATIC OPERATION-TELEMETRY NO. 3 CHANNEL 11 DISPLAYED EXCESSIVE NOISE.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS CHANNEL 11 DATA WAS DEGRADED AND/OR LOST.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RETESTS WERE REQUIRED.							
CORRECTIVE ACTION-TLM RF NO. 3 CANISTER WAS REPLACED.							000330
INSTRUMENTATION-A/B AEG1-0273/FC-SC0-01-029 COMPOSITE-FACTORY 23E YES WENDIX							
TELEMETRY SET AND TRANSDUC OSCILLATOR 010328 NO							
FAILURE MODE-OUT OF TOLERANCE. RF NO. 3 CHANNEL 10 INDICATED INTERMODULATION DISTORTION COUPLED FROM ARMA STRING FR ESQUENCER. THE CANISTER WAS REMOVED, INVESTIGATION SHOWED THAT CHANNEL 10 OSCILLATOR WAS FAULTY AND THAT THE FREQUEN CY DEVIATIONS OF CHANNELS 13, A, C, AND E WERE OUT OF TOLERANCE. ALSO CHANNEL 9 OSCILLATOR WAS FAULTY.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS-TLM OUTPUT DISTORTED AND OFF FREQUENCY.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. RE-RUN OF SYSTEM TEST MADE AND ALSO COMPOSITE TEST RE-RAN.							
CORRECTIVE ACTION-THE CANISTER WAS READJUSTED.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE DATE	SITE	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	TIME	DIP	OTH	VENDOR PART NO
INSTRUMENTATION-A/B	AE81-8273/FC-3CO-01-085	COMPOSITE-FACTORY	25C	YES	BENDIX	000381
TELEMETRY SET AND TRANSDUC COMMUTATOR		610322	NO			
<p>FAILURE MODE-OPEN (ELECT.) SEGMENT 48 OF CHANNEL 11, RP NO. 2, INDICATED AN OPEN CONDITION DURING THE TEST. THE P10 -TAIL FOR THIS SEGMENT WAS NOT PROPERLY CONNECTED.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. IMPROPER SIGNAL TRANSMITTED BY THIS SEGMENT.</p> <p>VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE SYSTEM TEST AND RETURN OF COMPOSITE MADE TO SHOW PROPER OPERATION.</p> <p>CORRECTIVE ACTION-P10-TAIL RESCHEDULED CORRECTLY.</p>						
INSTRUMENTATION-A/B	98-24-123	FAR	18C	ETR	YES	REED AND REESE
TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR		610321	NO			007323
<p>FAILURE MODE-ERRATIC OPERATION. DURING CHECKOUT THE MOTOR INTERMITTENTLY FAILED TO START. FAILURE WAS CAUSED BY A WORN NEGATIVE BRUSH WHICH SUBSEQUENTLY RESULTED IN POOR BRUSH TO COMMUTATOR SEGMENT CONTACT.</p> <p>CORRECTIVE ACTION-CONVAIR IS NOW RECORDING COMMUTATOR OPERATING TIME AND, ACCORDING TO THE VENDORS RECOMMENDATION, REPLACING MOTORS WHEN TOTAL OPERATING TIME EXCEEDS 50 HOURS.</p>						
INSTRUMENTATION-A/B	98-24-112	FAR	12C	ETR	YES	REED AND REESE
TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR		610310	NO			009806
<p>FAILURE MODE-STRUCTURAL. DURING SYSTEM CHECKOUT THE MOTOR EXHIBITED INTERMITTENT OPERATION. DISASSEMBLY DISCLOSED THAT THE NEGATIVE BRUSH SPRING WAS BENT FORCING THE BRUSH AGAINST THE SIDE OF THE BRUSH HOLDER INSTEAD OF TOWARDS THE COMMUTATOR SEGMENTS. MOTOR FAILURE WAS CAUSED BY THE BENT BRUSH SPRING.</p> <p>CORRECTIVE ACTION-CONVAIR IS NOW RECORDING COMMUTATOR OPERATING TIME AND REPLACING COMMUTATOR MOTORS WHEN OPERATING TIME EXCEEDS 50 HOURS BECAUSE OF RELATED BRUSH PROBLEMS.</p>						
INSTRUMENTATION-A/B	98-24-122	FAR	610308	ETR	YES	PATBERRY
TELEMETRY SET AND TRANSDUC DIFFERENTIAL AMPLIFIER		87-01241-1	NO			000381
<p>FAILURE MODE-ERRATIC OPERATION DURING TLM CHECKOUT. THE AMPLIFIER WAS REJECTED FOR CAUSING EXCESSIVE NOISE ON CHANNEL 12 OUTPUT. THE EXACT CAUSE OF FAILURE WAS NOT DETERMINED. THE FAILURE WAS PROBABLY CAUSED BY MINOR CHANGES IN THE FEEDBACK CIRCUIT COMPONENTS WHICH GENERATED THE EXCESSIVE NOISE.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
						084613
	CORRECTIVE ACTION-NONE. THIS FAILURE IS CONSIDERED TO BE AN ISOLATED INCIDENT AS THIS IS THE FIRST KNOWN OCCURRENCE OF THE PROBLEM. THE EXACT CAUSE OF FAILURE CANNOT BE DETERMINED.					
						084619
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	98-24-119 DIFFERENTIAL AMPLIFIER RESISTOR	FAR 87-01841-1	810227	YES NO	MAYBERRY	
	FAILURE MODE-OUT OF SPECIFICATION. DURING CANISTER CHECKOUT, THE 2.5 VOLT OUTPUT OF THE AMPLIFIER COULD NOT BE ADJUSTED BELOW 2.1 VOLTS. THE RESISTANCE OF RESISTOR R-19 WAS 150K OHMS INSTEAD OF 100K OHMS SPECIFIED BY VENDOR DRAWING NO. 8. FAILURE OF THE AMPLIFIER WAS CAUSED BY THE INSTALLATION OF THE INCORRECT RESISTOR IN THE FEEDBACK CIRCUIT.					
	CORRECTIVE ACTION-VENDOR HAS BEEN NOTIFIED TO INITIATE APPROPRIATE QUALITY CONTROL CORRECTIVE ACTION.					089436
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	AE81-0033/FC-4CO-01-100 COMPOSITE-FACTORY	1000 810225	YES NO			
	FAILURE MODE-OUT OF TOLERANCE- DIV (RBC CUTOFF OUTPUT) INDICATED GREATER THAN 100 PERCENT 1SW WHEN AFC WAS SENT.					
	SYSTEM EFFECT-OPERATION TOO HIGH- SIGNAL CAUSED BANDWIDTH OF TRANSMISSION TO BE EXCEEDED. WOULD CAUSE NOISE OR CROSS-TALK IN ADJACENT CHANNELS.					
	VEHICLE EFFECT-NONE.					
	CORRECTIVE ACTION-MEASUREMENT DIV (RBC CUTOFF OUTPUT) AND M20X (ABORT SYSTEM SIGNAL) WILL BE INTERCHANGED PRIOR TO FLIGHT.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER	AE80-0238/P3-801-00-09 FLIGHT	9C 810224	ETR-13 110	NO YES		
	FAILURE MODE-OUT OF EXPECTED TEST VALUE-TELEMETRY DATA INDICATED THAT THE VE VERNIER ENGINE DRIFTED ONE DEGREE DURING BOOSTER PHASE. THIS DRIFT IS ATTRIBUTED TO AERODYNAMIC HEATING OF THE TELEMETRY VERNIER POSITION TRANSDUCER OR THE FEEDBACK TRANSDUCER WHICH ARE LOCATED WITHIN THE VERNIER FAIRING.					
	SYSTEM EFFECT-IMPROPER ANALOG SIGNALS-AERODYNAMIC HEATING OF THE TELEMETRY TRANSDUCER WOULD PRODUCE IMPROPER ANALOG SIGNALS TO THE TELEMETRY PACKAGE. (A SIMILAR EFFECT WOULD RESULT FROM HEATING THE VE FEEDBACK TRANSDUCER).					
	VEHICLE EFFECT-NONE-THE INDICATED DRIFT HAD NO APPARENT EFFECT ON VEHICLE PERFORMANCE. THE RE-ENTRY VEHICLE IMPACTED IN THE PLANNED TARGET AREA.					
	CORRECTIVE ACTION-FUTURE VEHICLES WILL HAVE PRODUCTION TYPE COVER PLATES OVER THE VERNIER PITCH CLAMHELL FAIRING C					

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
LEARNANCE CUTOFFS TO DECREASE AERODYNAMIC IMPINGEMENT INSIDE THE FAIRING.							098779
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERR	98-24-113	FAR	9C 010224	ETR -210	YES NO	BENDIX MO 1038080-12-P-8	098343
FAILURE MODE-DRIFT. THE TRANSMITTER WAS SUSPECTED OF DRIFTING IN FREQUENCY DURING MISSILE COUNTDOWN. A CHECK IN THE LAB SHOWED NORMAL OPERATION AND NO DRIFT. FAILURE NOT CONFIRMED.							
CORRECTIVE ACTION-DUE TO THE IMPRECISENESS OF THIS FAILURE NO CORRECTIVE ACTION WILL BE TAKEN.							098314
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERR	AAS1-0021/P3-801-00-09	COUNTDOWN	9C 010224	ETR-13 -210	YES NO		
FAILURE MODE-ERRATIC OPERATION. NOISE PROBLEM ON TELEMETRY LINK 3. APPARENTLY RESULT OF SPURIOUS COUPLING WITHIN TELEMETRY SYSTEM.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD AND RECYCLE CALLED TO INVESTIGATE TELEMETRY PROBLEM AND REPLACE MAIN MISSILE BATTERY WHICH EXHIBITED FLUCTUATING VOLTAGE. ADDITIONAL RECYCLE CALLED TO REPLACE RF NO.2 CANISTER IN SUCCESSFUL ATTEMPT TO ELIMINATE LINK 3 NOISE PROBLEM. TOTAL HOLD TIME WAS 103 MINUTES.							
CORRECTIVE ACTION-REPLACE RF 2 CANISTER.							098310
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR ERR	98-24-109	FAR	9C 010222	ETR -210	YES NO	REED AND REESE MO 1096483-38	
FAILURE MODE-FAILED DURING OPERATION. DURING CHECKOUT THE MOTOR FAILED TO START. FAILURE NOT CONFIRMED. THE MOTOR STARTED WHEN THE CANISTER WAS JARRED BY A TECHNICIAN.							
CORRECTIVE ACTION-SOME. SINCE THE FAILURE WAS NOT CONFIRMED AND THE CAUSE OF FAILURE NOT CONCLUSIVELY ESTABLISHED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUB CARRIER OSCILLATOR ERR	98-24-113	FAR	9C 010217	ETR -210	YES NO	BENDIX-PACIFIC MO 1041982-38	
FAILURE MODE-DRIFT. CHANNELS A AND B SCO FREQUENCIES DRIFTED TO HIGHER VALUES.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE	SITE TIME	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT VERIFIED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATORS ERS	AAB1-0022/P4-4CO-03-67 COMPOSITE-B FACT	870 810816	14	YES NO		
FAILURE MODE-DRIFT. TELEMETRY DATA INDICATED THAT CHANNEL A AND E FREQUENCIES HAD DRIFTED TOWARD THE HIGH FREQUENCY BAND EDGES.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-TELEMETRY PACKAGE WAS REPLACED. (CORRECTIVE ACTION ON PACKAGE UNKNOWN).						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	AES1-0007/PC-3CO-01-081 COMPOSITE-FACTORY	21E 810130	FACTORY	YES NO		
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE- CHANNEL IS OPERATED 15 PCT PSW BELOW THE EXPECTED. VALUE, DUE TO DRIFT OF THE SUBCARRIER OSCILLATOR.						
SYSTEM EFFECT-OPERATION TOO LOW.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED-PARTIAL COMPOSITE RETEST WAS REQUIRED.						
CORRECTIVE ACTION-THE SUBCARRIER OSCILLATOR WAS ADJUSTED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONNECTOR ERS	AAB1-0611/P3-303-00-08 COUNTDOWN	8E 810184	13 -4200	YES NO		
FAILURE MODE-CONTAMINATION. MOISTURE IN PLUS BUSPS CAUSED BIAS SHIFT ON CHANNEL 3C.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. BIAS SHIFT OF DATA ON CHANNEL 3C.						
VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD CALLED TO INVESTIGATE PROBLEM. PLUS 30SPS PURGED TO RESTORE PROPER OPERATION. TOTAL HOLD TIME WAS 70 MINUTES.						
CORRECTIVE ACTION-PURGE CONNECTOR OF MOISTURE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CANISTER ERS	98-24-108 98-24-108	FAR 87-18871-008	9C 910119	ETR -000	YES NO	BENDIX-PACIFIC 093908
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. DURING PRECOUNT OPERATIONAL CHECKS THE CANISTER EXHIBITED RANDOM VARIATIONS IN THE OUTPUT SIGNAL LEVEL AND DEVIATIONS. FAILURE NOT CONFIRMED.						
CORRECTIVE ACTION-NONE, SINCE THE CAUSE OF THE FAILURE WAS NOT DETERMINED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR ERS	A481-0011/P3-501-00-08 A481-0011/P3-501-00-08	COUNTDOWN	9C 910119	13 -000	YES NO	093976
FAILURE MODE-FAIL DURING OPERATION. COMMUTATION CEASES ON RF 3.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. RF 3 COMMUTATION STOPS PREMATURELY.						
VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD CALLED TO CHANGE RF 3 CANISTER. TOTAL HOLD TIME WAS 118 MINUTES AND COUNT RECYCLED TO 1-70.						
CORRECTIVE ACTION-REPLACE RF 3 CANISTER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR ERS	A481-0011/P3-501-00-08 A481-0011/P3-501-00-08	COUNTDOWN	9C 910119	13 -000		093976
FAILURE MODE-FAIL DURING OPERATION. COMMUTATION CEASES ON RF 1 CHANNEL 11.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. RF 1 CHANNEL 11 COMMUTATION STOPS PREMATURELY.						
VEHICLE EFFECT-COUNTDOWN ABORTED AND RE-SCHEDULED. HOLD CALLED TO INVESTIGATE LOSS OF COMMUTATION AND PROBLEM WITH LOX TANKING MAIN PUMP. COUNTDOWN ABORTED DUE TO LACK OF TIME TO CORRECT TELEMETRY PROBLEM.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR, MOTOR ERS	98-24-103 98-24-103	FAR	9C 910119	ETR -000	YES NO	REED AND REISE 1096483-38
FAILURE MODE-STRUCTURAL. THREE MOTORS FAILED WHILE INSTALLED ON THE MISSILE. DISASSEMBLY DISCLOSED THAT BOTH MOTOR BRUSHES WERE WORN SO SHORT THAT THE BRUSH SPRINGS WERE NOT EFFECTIVE. FAILURE OCCURRED BECAUSE OF WORN BRUSHES AND SUBSEQUENT POOR CONTACT BETWEEN THE BRUSH AND COMMUNICATOR BRUSHES.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
	CORRECTIVE ACTION-CONVAIR IS NOW RECORDING COMMUTATOR MOTOR OPERATING TIME AND, ON THE BASIS OF THE VENDORS RECOMMENDATION, REPLACING THE MOTORS WHEN TOTAL OPERATING TIME EXCEEDS 50 HOURS.					
	INSTRUMENTATION-A/B AER1-0013/FC-4CO-01-104 COMPOSITE-FACTORY 1040 YES TELEMETRY SET AND TRANSDUC RATE SYRO DEMODULATOR 010100 NO ERS					
	FAILURE MODE-FAILED DURING OPERATION-VAN RATE SYRO SIGNAL INDICATED UNEXPECTED VARIATIONS OF UP TO 4 PER CENT ISBW WITH OUTPUT OF RATE SYROS GROUNDED. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE DELAYED- POST COMPOSITE TESTS REQUIRED TO SHOW SATISFACTORY OPERATION. CORRECTIVE ACTION-FAULTY RATE SYRO DEMODULATOR REPLACED IN TLM ACCESSORY PACKAGE.					
	INSTRUMENTATION-A/B 98-24-103 FAR 010100 ETR YES BENDIX-PACIFIC TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR-TUBE 27-01288-5 NO ERS					
	FAILURE MODE-ERRATIC OPERATION. DURING CHECKOUT THE OSCILLATOR REPORTEDLY EXHIBITED HIGH AND ERRATIC OUTPUT FREQUENCY WITH A CONSTANT INPUT SIGNAL. FREQUENCY CONTROL TUBE, V1 WAS GASSY. IT WAS NOTED THAT THE TUBE HAD A CRACKED TIP. FAILURE WAS CAUSED BY THE DEFECTIVE TUBE. CORRECTIVE ACTION-NONE, THE FAILURE IS CONSIDERED AN ISOLATED INCIDENT.					
	INSTRUMENTATION-A/B AER1-0015/FC-4CO-01-088 COMPOSITE-FACTORY 980 YES TELEMETRY SET AND TRANSDUC TLM CANISTER 001810 NO ERS					
	FAILURE MODE-OUT OF TOLERANCE. THE COMMAND OUTPUTS, AUTOMATIC FUEL CUTOFF (AFCO) AND MANUAL FUEL CUTOFF (MFCD), EXCEEDED THE 8.4 VOLT LIMIT. THIS WAS A DESIGN ERROR AND REPEATED FOR SIX COMPOSITES. SYSTEM EFFECT-OPERATION TOO HIGH. VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING WAS REQUIRED. CORRECTIVE ACTION-DESIGN ERROR CORRECTED AFTER SIX COMPOSITES.					

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY, RESISTOR ERS	98-24-083	FAR	9C 801213	ETR	YES NO	BENDIX NO 1091440
<p>FAILURE MODE-OUT OF TOLERANCE. DURING SYSTEM CHECKOUT, CANISTER EXHIBITED AN UNMODULATED OUTPUT. TESTING ISOLATED THE CAUSE TO THE POWER SUPPLY AND A VISUAL CHECK DISCLOSED BURNED RESISTORS IN THE 150 V DC CIRCUIT. THE POWER SUPPLY FAILED BECAUSE THE POTTING WHICH MECHANICALLY SECURES THE RESISTOR IN PLACE, RESTRICTED THE HEAT DISSIPATION OF THE RESISTOR.</p> <p>CORRECTIVE ACTION-NONE. SINCE FAILURE OF THIS POWER SUPPLY WAS A FIRST OCCURRENCE OF THIS TYPE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONNECTOR-WIRING ERS	04239/03-48N-01-99	COMPOSITE-PRO/DPL	99D 801210	BS	YES NO	
<p>FAILURE MODE-OPEN. ELECTRICAL. NO TELEMETRY SIGNAL RECEIVED INDICATING GYRO DISPLACEMENT.</p> <p>SYSTEM EFFECT-OPERATION DOES NOT START. NO MOVEMENT OF THE DISPLACEMENT GYRO8 DURING THE LOOP TEST.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED.</p> <p>CORRECTIVE ACTION-PI02 PLUGGED INTO GYRO CANISTER.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	98-24-102	FAR 27-01229-3	9C 801209	ETR	YES NO	BENDIX-PACIFIC TAV8
<p>FAILURE MODE-CONTAMINATION. DURING SYSTEM CHECKOUT, THE AMPLIFIER EXHIBITED NO OUTPUT. DISASSEMBLY DISCLOSED A SMALL PIECE OF CONTAMINATION LYING ACROSS THREE PLATES OF THE GRID TUNING CAPACITOR, C-2. THE FAILURE WAS CAUSED BY THE FOREIGN MATERIAL. WHICH RESULTED IN INTERMITTENT SHORTING OF THE CAPACITOR PLATES.</p> <p>CORRECTIVE ACTION-SINCE THE ORIGIN OF THE CONTAMINATION COULD NOT BE DETERMINED. THE VENDOR AND CONVAIR PERSONNEL WILL BE REQUESTED TO IMPROVE THEIR CLEANLINESS PRACTICES.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	98-24-101	FAR 7-01703-13	9D 801208	ETR	YES NO	CONSOLIDATED ELECTRODYNAMICS
<p>FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER FOR MEASUREMENT PSP GAVE A FALSE FULL SCALE INDICATION. FAILURE WAS CAUSED BY A DEFECTIVE SOLDER JOINT BETWEEN THE HOUSING AND THE BASE PLATE WHICH ALLOWED THE APPLIED PRESSURE TO EQUALIZE WITH THE REFERENCE PRESSURE, RESULTING IN ZERO OUTPUT VOLTAGE.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							001317
	CORRECTIVE ACTION-NONE. THIS PART NUMBER TRANSducer IS NO LONGER USED.						
							005000
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERR	AERD-0730/P3-902-00-04 TELEMETRY CANISTER	COUNTDOWN 87-18371-3	4E 80118	13 -0220	YES NO	YES CONVAIR	
FAILURE MODE-ERRATIC OPERATION. DEVIATION OF RF1 TELEMETRY NOTED DURING GUIDANCE AUTOPILOT COMPATIBILITY TEST. NO D DETAILS AVAILABLE.							
SYSTEM EFFECT-IMPROVER ANALOG SIGNALS. S.A.P. TEST DATA QUESTIONABLE BECAUSE OF ERRATIC RF1 OPERATION.							
VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD CALLED TO REPLACE TELEMETRY RF1. S.A.P. TEST HAD TO BE RERUN AFTER NEW TELEM ETER PACKAGE INSTALLED.							
	CORRECTIVE ACTION-RF1 CANISTER REPLACED.						
							006000
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERR	98-24-097 TELEMETRY AMPLIFIER	FAR 87-18373-1	80118	ETR	YES NO	YES BENDIX	
FAILURE MODE-OUT OF TOLERANCE. FREQUENCY CHANNELS COULD NOT BE ADJUSTED. THE TROUBLE WAS ISOLATED TO THE AMPLIFIER.							
	CORRECTIVE ACTION-NONE, SINCE THE CAUSE OF FAILURE WAS NOT CONFIRMED.						
							006013
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERR	AERD-1007/FC-400-08-080 TELEMETRY TLM CANISTER	COMPOSITE-FACTORY 80118	-0D 80118		NO NO		
FAILURE MODE-OUT OF TOLERANCE. THE NEGATIVE SATING SEGMENTS OF CHANNEL 14 WERE 10 PERCENT FDM FROM THE HIGH FREQUEN CY BAND EDGE. THIS PROBLEM WAS CAUSED BY THE 8.3 VDC POWER SUPPLY IN THE POWER DISTRIBUTION TRAILER BEING SET TOO LC W.							
SYSTEM EFFECT-OPERATION TOO HIGH.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING WAS REQUIRED.							
CORRECTIVE ACTION-SET 8.3 VDC POWER TO CORRECT LEVEL IN POWER-DISTRIBUTION TRAILER.							

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SYSTEM LOG-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATOR-SCREENS ERS	98-24-038 98-24-038 27-11018-031	FAR	90114	ETR	YES NO	093807
FAILURE MODE-OUT OF TOLERANCE. CANISTER WAS OPENED AT AIR TO INCORPORATE A MODIFICATION AND IT WAS NOTED THAT THE 1 M FLIGHT CALIBRATOR SUB ASSEMBLY WAS LOOSE. IT WAS CONCLUDED THAT THE DISCREPANCY OCCURRED AS A RESULT OF HUMAN ERROR & ON THE PART OF SHOP AND INSPECTION PERSONNEL.						
CORRECTIVE ACTION-CONVAIR SHOP AND INSPECTION PERSONNEL HAVE BEEN INFORMED IN DETAIL OF THE INCIDENT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY, TRANSISTOR ERS	98-24-107 98-24-107	FAR	93D 901108	ETR	YES DEMOIX NO 1046173-SA	093804
FAILURE MODE-ELECTRICAL SHORT. DURING TLM SYSTEM CHECKOUT CANISTER HAD NO OUTPUT. POWER SUPPLY WAS FOUND TO BE THE CAUSE. THE INTERNAL POWER CHANGE OVER SWITCH FAILED AS A RESULT OF THE HIGH CURRENT DRAW BY THE POWER SUPPLY. POWER TRANSISTORS & 201 AND & 202 WERE SHORTED EMITTER TO COLLECTOR AND EMITTER TO COLLECTOR BASE.						
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO INTENSIFY INSPECTION AND TESTING OF THE ITEM PART AND INCORPORATED TRANSISTORS PER FAR 98-24-031.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	98-24-039 98-24-039	FAR	3E 901005	ETR	YES DEMOIX NO 1052060-12-2-B	093809
FAILURE MODE-OUT OF SPECIFICATION ON TOLERANCE. THE TRANSMITTER EXHIBITED EXTRANEOUS FREQUENCIES IN ITS OUTPUT. TESTING AT SAN DIEGO CONFIRMED THE REPORTED CONDITIONS. HOWEVER, COMPARABLE DATA FROM A TEST PERFORMED ON A SIMILAR TRANSMITTER, WHICH WAS KNOWN TO BE GOOD, WERE NOT SIGNIFICANTLY DIFFERENT. IT WAS CONCLUDED THAT THE ITEM TRANSMITTER WAS AS NORMAL.						
CORRECTIVE ACTION-NONE, SINCE THE ANALYSIS DISCLOSED THE TRANSMITTER OPERATION TO BE SATISFACTORY.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	A380-0108/P3-801-00-03 A380-0108/P3-801-00-03	FAR	3E 901003	ETR-13	YES NO	
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME, DURING FIRST FRY ALL TELEMETRED DATA WAS LOST. NO INDIVIDUAL COMPONENT WAS ISOLATED.						
SYSTEM EFFECT-OPERATION DOES NOT START, TELEMETRY SYSTEM FAILED TO OPERATE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-THE ENTIRE TELEMETRY TRANSMISSION SYSTEM WAS REPLACED. SUBSEQUENT TESTS WERE NORMAL.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	P3-24-100 P3-24-100 P3-24-100	PAR 87-11017-1	3E 60087	ETR	YES NO	
FAILURE MODE-ERRATIC OPERATION. DURING A STATIC FIRING THE TLM SYSTEM OUTPUT EXHIBITED EXCESSIVE NOISES. THE TLM SYSTEM NOISE DISAPPEARED SOON AFTER ENGINE CUTOFF. THE TLM SYSTEM EXCEPT FOR THE RF CANISTERS WAS REJECTED. NONE OF THE INDIVIDUAL COMPONENTS TESTED WAS RESPONSIBLE FOR THE REPORTED FAILURE.						
CORRECTIVE ACTION-NONE. SINCE THE FAILURE WAS NOT CONFIRMED AND THE EXACT CAUSE OF FAILURE NOT DETERMINED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	AASD-0108/P3-501-00-03 AASD-0108/P3-501-00-03	FRF	3E 600923	ETR-13	YES NO	
FAILURE MODE-FAIL DURING OPERATION. DURING THE FIRST FRF ALL DATA WAS LOST. FAILURE COULD NOT BE ISOLATED TO ANY ONE COMPONENT IN THE RF TRANSMISSION SYSTEM.						
SYSTEM EFFECT-ERRATIC OPERATION. ALL DATA WAS LOST.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-THE ENTIRE TRANSMISSION SYSTEM WAS REPLACED. ALSO, FACTORY TORQUE PAINTED, BUT LOOSE. ALJAX CONNECTORS WERE FOUND.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY, TRANSDUC TLM ERS	98-24-086 98-24-086	PAR	30D 600919	ETR	YES NO	YES NO 1049173-2-A
FAILURE MODE-SHORTCIRCUIT. POWER SUPPLY WAS INTERNALLY SHORTED. FAILURE ORIGINATED IN TRANSDUC TLM.						
CORRECTIVE ACTION-THE VENDOR HAS REQUESTED TO INITIATE CORRECTIVE ACTION FOR THIS PROBLEM PER PAR 98-24-031.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR, MOTOR ERS	98-24-083 98-24-083	PAR	T4D 600916	ETR	YES NO	YES NO 1098483-43
FAILURE MODE-FAIL DURING OPERATION. DURING CANISTER CHECKOUT AT LAB. THE MOTOR FAILED TO OPERATE. ANALYSIS SHOWED A						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							988604
	HIGH RESISTANCE, APPROXIMATELY 10K EXISTED IN THE ARMATURE CIRCUIT OF THE MOTOR. DISASSEMBLY DISCLOSED AN EXCESSIVE AMOUNT OF FREE BRUSH MATERIAL IN THE BRUSH RETAINING BLOCK AND A HEAVY FILM OF BRUSH MATERIAL ADHERING TO THE COMMUTATOR SEGMENTS.						
	CORRECTIVE ACTION-THE VENDOR IS NOW INSTALLING A NEW TYPE MOTOR FROM A DIFFERENT SOURCE.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-TRANSMITTER ERS	A160-074471-401-00-76 FLIGHT	700 800916	ETR-11 36	YES NO		987761
	FAILURE MODE-ERRATIC OPERATION. DATA SIGNALS FROM RF 1 WERE REPEATEDLY INTERRUPTED BY NOISE. BELIEVED DUE TO A FAULTY TRANSMITTER. DATA FROM OTHER RFs WERE FREE OF NOISE.						
	SYSTEM EFFECT-ERRATIC OPERATION. NOISE RESULTED IN UNUSABLE DATA ON THE ARMA DIGITAL CHANNEL AND SOME DATA ON OTHER SYSTEMS WAS LOST.						
	VEHICLE EFFECT-NONE.						
	CORRECTIVE ACTION-NONE.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC RUMCARRIER OSCILLATOR ERS	98-24-082 FAR 7-01488	700 800615	ETR 36	YES NO	YES NO	988607
	FAILURE MODE-OUT OF TOLERANCE. DURING CHECKOUT THE OSCILLATOR EXHIBITED HIGH OUTPUT FREQUENCY.						
	CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT CONFIRMED AND THE CAUSE OF THE FAILURE NOT DETERMINED.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	A480-0089/P4-401-CJ78 COUNTDOWN	700 800916	ETR 36	YES NO	YES NO	983978
	FAILURE MODE-OUT OF TOLERANCE. DURING PRE-COUNT OF ATTEMPTED LAUNCH, THE TELEMETRY RF PACKAGE OSCILLATOR FOR CHANNEL 1 IS WAS FOUND TO BE UNSTABLE.						
	SYSTEM EFFECT-ERRATIC OPERATION. OSCILLATOR FREQUENCY UNSTABLE.						
	VEHICLE EFFECT-COUNTDOWN DELAYED.						
	CORRECTIVE ACTION-REPLACE THE RF TELEMETRY PACKAGE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER CIRCUIT ERS	AE60-078483-401-00-47 TELEMETRY SET AND TRANSDUCER CIRCUIT ERS	FLIGHT	470 600912	5788-3 109	YES NO		899104
<p>FAILURE MODE-SHORT (ELECT). A SHORT IN ONE OF THE TRANSDUCERS OR INSTRUMENTATION CIRCUITRY RESULTED IN FAILURE OF THE TRANSDUCER POWER SUPPLY AT 109 SECONDS.</p> <p>SYSTEM EFFECT-OPERATION STOPS PREMATURELY. DATA FROM 80 MEASUREMENTS WHICH USED THE TRANSDUCER POWER SUPPLY WAS LOST.</p> <p>VEHICLE EFFECT-NONE. EVALUATION OF A PROXIMITY PROBLEM WAS MADE EXTREMELY DIFFICULT AS DATA WAS RECOVERED FROM ONE OF THE 12 MEASUREMENTS WHICH DID NOT USE THIS POWER.</p> <p>CORRECTIVE ACTION-ISOLATION RESISTORS WERE ADDED IN THE INSTRUMENTATION CIRCUITRY TO PREVENT A SHORT FROM AFFECTING THE TRANSDUCER POWER SUPPLY.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	AE10-0811/FC-4CO-08-077 TELEMETRY SET AND TRANSDUCER ERS	COMPOSITE-FACTORY	770 600908		YES NO		899617
<p>FAILURE MODE-OUT OF TOLERANCE. CHANNEL E WAS OPERATING BEYOND THE LOW FREQUENCY BAND EDGE DUE TO OUT OF ADJUSTED OSCILLATOR.</p> <p>SYSTEM EFFECT-OPERATION TOO LOW.</p> <p>VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST- COMPOSITE TESTING WAS REQUIRED.</p> <p>CORRECTIVE ACTION-READJUSTED THE CHANNEL E OSCILLATOR.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER ERS	AE60-0728/FC-4CO-02-083 TELEMETRY SET AND TRANSDUCER ERS	COMPOSITE-FACTORY	830 600901		NO NO		899664
<p>FAILURE MODE-OUT OF TOLERANCE. CHANNEL 14 EXCEEDED BANDWIDTH LIMITS DURING VARIOUS PARTS OF THE TEST. CHANNELS 13 AND 15 WERE 5 PCT FROM EXCEEDING THEIR BAND LIMITS. FILAMENT VOLTAGE SUPPLIED BY POWER DISTRIBUTION TRAILER WAS TOO LOW.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SATISFACTORY OPERATION CONFIRMED ON SUBSEQUENT COMPOSITE.</p> <p>CORRECTIVE ACTION-POWER DISTRIBUTION TRAILER VOLTAGE PROPERLY ADJUSTED.</p>							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	JIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PR1 VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER CRS	98-24-084 98-24-084 TELEMETRY SET AND TRANSDUC TLM CANISTER CRS	FAR	3C 600801	ETR	YES BENDIX NO 1051440-3-B
FAILURE MODE-FAIL DURING OPERATION. THE CANISTER EXHIBITED NO OUTPUT DURING SYSTEM CHECKOUT. FAILURE MOST PROBABLY CONNECTED DURING ANALYSIS, SINCE EXACT CAUSE OF FAILURE COULD NOT BE DETERMINED.					
CORRECTIVE ACTION-NONE SINCE THE EXACT CAUSE OF FAILURE COULD NOT BE DETERMINED.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR, SCREWS CRS	98-24-081 98-24-081 TELEMETRY SET AND TRANSDUC COMMUNICATOR, SCREWS CRS	FAR 27-12371-3	600817	ETR	YES BENDIX NO
FAILURE MODE-OUT OF SPECIFICATION. CANISTER WAS OPENED AT TLM. LAB., TWO 1/8 RPS COMMUNICATOR MOUNTING SCREWS WERE LYING LOOSE INSIDE. THE REMAINING TWO SCREWS WERE LOOSE.					
CORRECTIVE ACTION-CONVAINR HAS REITERATED THE IMPORTANCE OF GOOD WORKMANSHIP AND ADEQUATE INSPECTION TO COGNIZANT "E BROWNEL."					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY CRS	98-24-076 98-24-076 TELEMETRY SET AND TRANSDUC POWER SUPPLY CRS	FAR	4C 600804	ETR	YES BENDIX NO 1051440-3-B
FAILURE MODE-ELECTRICAL SHORT. DURING SYSTEM CHECKOUT THE POWER SUPPLY EXHIBITED NO OUTPUT. INVESTIGATION SHOWED IN AT THE POWER SUPPLY WAS SHORT CIRCUITED INTERNALLY. THE DIRECT CAUSE OF THE FAILURE WAS NOT DEFINITELY ESTABLISHED.					
CORRECTIVE ACTION-NONE, SINCE THE EXACT CAUSE OF THE FAILURE WAS NOT DETERMINED.					
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR CRS	98-24-073 98-24-073 TELEMETRY SET AND TRANSDUC COMMUNICATOR CRS	FAR	37D 600729	WTR	YES UNITED ELECTRO NO DYNAMICS 27-12242-1
FAILURE MODE-ELECTRICAL OPEN. DURING CHECKOUT THE TRANSMITTER FAILED TO OPERATE ON CHANNEL 15. APPARENTLY DUE TO AN IMPERATIVE 10 RPS COMMUNICATOR MOTOR, DISASSEMBLY DISCLOSED THAT APPROXIMATELY 40 PCT OF THE BRUSH FACES WERE NOT IN CONTACT WITH THE MOTOR COMMUNICATOR SEGMENTS. THE BRUSHES HAD NOT BEEN PROPERLY RUN IN.					
CORRECTIVE ACTION-VENDOR TO INVESTIGATE AND CORRECT BRUSH RUN -IN PROCEDURE.					

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	AESD-0812/FC-4CO-01-080 TELEMETRY ACCESSORY PACKAGE FILTER	COMPOSITE-FACTORY	800 800785	YES NO		
<p>FAILURE MODE-FAILURE DURING OPERATION. MEASUREMENTS A8090, A4100, A5100, A6200 AND A8810 SENDING MODE ACCELEROMETER B. COULD NOT BE EVALUATED QUANTITATIVELY DUE TO A DESIGN PROBLEM INVOLVING THE FILTERS ASSOCIATED WITH THESE MEASURE MENTS. ACCELEROMETERS A8090 AND A8190 WERE FOUND TO BE FAULTY ON POST-COMPOSITE TESTING.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. PROPER OPERATION CONFIRMED ON SUBSEQUENT COMPOSITE HOWEVER TWO ACCELEROMETER S WERE FOUND TO BE FAULTY.</p> <p>CORRECTIVE ACTION-NEW FILTERS WERE DESIGNED AND INSTALLED IN THE ACCESSORY PACKAGE. NO REPLACEMENTS AVAILABLE FOR P AULTY ACCELEROMETERS A8090 AND A8190. NO FURTHER TESTING.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	AESD-0812/FC-4CO-01-80 TELEMETRY CONNECTOR-ELECT	COMPOSITE-FACTORY	800 800785	YES NO		
<p>FAILURE MODE-ELECTRICAL OPEN. MEASUREMENT A8221 INDICATED 13 PCT ISB WHEN 0 PCT WAS EXPECTED. A PIN PERTINENT TO TH E CIRCUIT FOR MEASUREMENT A8221 WAS BROKEN IN RECEPTACLE 8V3.</p> <p>SYSTEM EFFECT-OPERATION TOO HIGH.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SATISFACTORY POST-COMPOSITE TESTING ACCOMPLISHED.</p> <p>CORRECTIVE ACTION-THE TELEMETRY ACCESSORY PACKAGE WAS REMOVED AND RECEPTACLE 8V3 REPLACED.</p>						
INSTRUMENTATION-A/D TELEMETRY SET AND TRANSDUC	AASD-0088/PI-4CO-01-68 TELEMETRY TRANSDUCER	COMPOSITE-B FACT	880 800718	11 88	YES NO	
<p>FAILURE MODE-SHORT (ELECT). POOR CONNECTION IN B1 TAN TRANSDUCER PLUG CAUSED SHORTING OF TELEMETRY NO. 1 POWER SUPP LY.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION. AT APPROXIMATELY 88 SECONDS THE POWER SUPPLY WAS SHORTED OUT AND REMAINED IN THAT CONDITION UNTIL BOOSTER CUTOFF.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-UNKNOWN. THE TRANSDUCER WAS REMOVED AND REPLACED.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME QIF	SITE TIME QIF	PHI QIF	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC VALVE-TRANSDUCER CHECKOUT ERS	88-24-066 88-24-066 88-24-066	FAR 87-01879-1	SE 800706	87-01879-1	NO D CLARK 87-01879-1	881187
FAILURE MODE-LEAK. DURING CALIBRATION OF THE TRANSDUCER, 8000 PSI NITROGEN WAS APPLIED TO THE CALIBRATE PORT OF THE ITEM VALVE. INTERNAL LEAKAGE ALLOWED THE HIGH PRESSURE GAS TO ENTER THE HYDRAULIC SYSTEM. LEAKAGE WAS CAUSED BY CUTT ING OF THE POPPET DYNAMIC O-RING BY TRAVEL PAST THE TRANSDUCER PORT DURING POPPET ACTUATION. TOTAL OF SIX FAILURES I DENTIFIED ON THIS FAR.						
CORRECTIVE ACTION-PROCEDURES HAVE BEEN MODIFIED TO INCLUDE (1) PROHIBITING ACTUATION OF THE VALVE POPPET WITH GREAT ER THAN 10 PSI ON THE SYSTEM PORT. (2) VENTING OF THE SYSTEM PRIOR TO CALIBRATION OF THE TRANSDUCER. ALL VALVES IN THE VENDOR STOCK ARE BEING MODIFIED TO INCLUDE (1A) INCREASED CHAMFER ON THE TRANSDUCER PORT. (B) INCREASED LENGTH OF THE POPPET TO INSURE POSITIVE SEAL AT HIGH PRESSURES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC VALVE-TRANSDUCER CHECKOUT ERS	AASD-0034/P1-401-00-40 AASD-0034/P1-401-00-40 AASD-0034/P1-401-00-40	COUNTDOWN	900 900830	ETR-11	YES NO	884448
FAILURE MODE-ERRATIC OPERATION. TELEMETRY RF NO. 8 DATA BECAME NOISY DURING THE LAUNCH ATTEMPT.						
SYSTEM EFFECT-ERRATIC OPERATION. NOISE CAUSED LOSS OF DATA ON RF NO. 8.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-CANISTER WAS REMOVED AND REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC VALVE-TRANSDUCER CHECKOUT ERS	AASD-0037/P3-402-00-37 AASD-0037/P3-402-00-37 AASD-0037/P3-402-00-37	FLIGHT	870 900827	ETR-18 322.6	YES NO	886718
FAILURE MODE-FAIL DURING OPERATION. AT 322.6 SECONDS THE 2.4 AND 0.8 VOLT POWER SUPPLIES DROPPED TO APPROXIMATELY 2 5 PERCENT ISM.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. NO TELEMETRY COVERAGE ON MEASUREMENTS UTILIZING THE 2.4 AND 0.8 VOLT POWER S UPPLY. LITTLE DATA WAS LOST HOWEVER, SINCE THE MAJORITY OF THE MISSILE SYSTEMS WERE NO LONGER IN ACTIVE OPERATION AT THAT TIME.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC STROBE LIGHT WIRING ERR	AASD-0048/FC-4CO-01-87 AASD-0048/FC-4CO-01-87 AASD-0048/FC-4CO-01-87	COMPOSITE-B FACT	870 800818	12	YES NO		894813
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. SWITCHOVER OF CHANNEL E FROM COMMUTATED MODE TO CONTINUOUS MODE TO OBSERVE STROBE LIGHT OPERATION DID NOT OCCUR BECAUSE OF A WIRING ERROR.</p> <p>SYSTEM EFFECT-OPERATION DOES NOT START. MONITORING OF STROBE LIGHT OPERATION DID NOT START.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-WIRING ERROR WAS CORRECTED.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONNECTOR WIRING ERR	DA028/83-4MO-01-83 DA028/83-4MO-01-83 DA028/83-4MO-01-83	COMPOSITE-FRD/DPL	83 800818	8768-3	NO NO		897824
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. BROKEN WIRE IN CONNECTOR.</p> <p>SYSTEM EFFECT-OPERATION DOES NOT START. INOPERATIVE TELEMETRY TRANSMITTER.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER WIRING ERR	ACSD-0483/FC-4CO-01-92 ACSD-0483/FC-4CO-01-92 ACSD-0483/FC-4CO-01-92	COMPOSITE-FACTORY	320 800811		YES NO		898836
<p>FAILURE MODE-FAILURE TO OPERATE AT PRESCRIBED TIME. MEASUREMENTS P347X SUSTAINER CUTOFF RELAY LOCKIN AND P77X VERNIER CUTOFF RELAY- FAILED TO INDICATE THEIR BLIP FUNCTIONS UPON ACTIVATION OF THEIR RESPECTIVE RELAYS. WIRING ERROR IN RF CANISTER- P347X AND P77X- NOT WIRED.</p> <p>SYSTEM EFFECT-NONE.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SATISFACTORY POST-COMPOSITE TESTING WAS PERFORMED.</p> <p>CORRECTIVE ACTION-THE RF CANISTER WAS REMOVED AND WIRING WAS INSTALLED FOR MEASUREMENTS P347X AND P77X.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC VERNIER POSITION TRANSDUCERS WIRING ERR	AASD-0048/FC-4CO-01-82 AASD-0048/FC-4CO-01-82 AASD-0048/FC-4CO-01-82	COMPOSITE-FACTORY	320 800811		YES NO		898836
<p>FAILURE MODE-FAILURE DURING OPERATION. MEASUREMENTS 8881D VS YAW AND 8882D VS PITCH ROLL-INDICATED MOVEMENT IN REVE ARE FROM WHICH WAS EXPECTED. THE HARNES88 HAD NOT BEEN MODIFIED TO THE PROPER CONFIGURATION.</p>							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							880884
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SATISFACTORY POST COMPOSITE TESTING WAS PERFORMED.							
CORRECTIVE ACTION-CORRECTED HARNESS WIRING TO PROPER CONFIGURATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS							880823
	AE60-0381/P1-401-00-84	COUNTDOWN	840 800811	ETR-11	YES NO		
FAILURE MODE-ERRATIC OPERATION. TELEMETRY RPS SIGNAL STRENGTH WAS VARYING FROM 1000 TO 8000 MICROVOLTS.							
SYSTEM EFFECT-ERRATIC OPERATION, DEGRADATION OF DATA FROM RPS OCCURRED.							
VEHICLE EFFECT-COUNTDOWN DELAYED.							
CORRECTIVE ACTION-REPLACED TRANSMITTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS							880837
	98-24-061	FAR	420 600800	ETR	YES NO	YES CONSOLIDATED 2 NO ELECTRODYNAMIC UNKNOWN	
FAILURE MODE-ERRATIC OPERATION. TRANSDUCER FOR MEASUREMENT PIP INDICATED AN INTERMITTENT OUTPUT.							
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONDITIONER- SIGNAL ERS							880856
	AE60-0320/P4-401-00-48	FLIGHT	430 800324	AMR 14	YES NO		
FAILURE MODE-ERRATIC OPERATION. INVERTER AC VOLTAGE DATA APPEARED TO BE ERRATIC ALTHOUGH IT STAYED WITHIN SPECIFICATION. THE ERRATIC DATA WAS NOT REFLECTED IN USER SYSTEMS AND IS THEREFORE CONSIDERED TO BE ERRONEOUS DATA.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS							880856
	98-24-056	FAR	430 800310	AMR 14	YES NO	YES CONSOLIDATED 2 NO ELECTRODYNAMIC	
FAILURE MODE-ERRATIC OPERATION. TRANSDUCER WAS REPORTED TO HAVE ERRATIC OUTPUT FROM 11 TO 13 P816.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER, CAPACITOR ERR	98-24-093	FAR	SAD 800428	ETR	YES SENDIX NO TAVS	
FAILURE MODE-ELECTRICAL SHORT. WHILE ACTING AS A SUPPORT FUNCTION FOR GUIDANCE SYSTEM CHECKOUT, THE AMPLIFIER EXHIBITED LOW POWER OUTPUT. INVESTIGATION DISCLOSED THAT A SCREEN BYPASS CAPACITOR, C-8 WAS SHORTED. FAILURE WAS CAUSED BY THE SHORTED CAPACITOR WHICH REDUCED THE SCREEN TO GROUND RESISTANCE AND RESULTED IN BIAS CHANGES IN THE CIRCUIT.						
CORRECTIVE ACTION-CONVAIR HAS INFORMED THE VENDOR OF THE DISCREPANCY AND WILL MAINTAIN SURVEILLANCE OVER THE COMPONENT SO THAT ADDITIONAL CORRECTIVE ACTION MAY BE TAKEN IF WARRANTED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC HARNESS ERR	AE60-0364/FC-4CO-01-71	COMPOSITE-FACTORY	71D 800427		YES NO	
FAILURE MODE-OUT OF TOLERANCE. THE ERROR RATIO DEMODULATOR OUTPUT, MEASUREMENT U81V, RF NO.1 CHANNEL A, SEGMENTS 19 AND 49, WAS NOT MONITORED DURING THE COMPOSITE TEST DUE TO AN INCORRECTLY WIRED TELEMETRY HARNESS.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED. PROPER OPERATION CONFIRMED ON SUBSEQUENT COMPOSITE.						
CORRECTIVE ACTION-THE HARNESS WAS RE-WORKED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CAMBIER ERR	AE60-0364/FC-4CO-01-71	COMPOSITE-FACTORY	71D 800427		YES NO	
FAILURE MODE-DRIFT MEASUREMENT 82570 (SUSTAINER PITCH) INDICATED A 3 PERCENT ABRUPT SHIFT TOWARD THE HIGH FREQUENCY BAND EDGE AND DID NOT REGAIN ITS ORIGINAL LEVEL (RF NO. 1, CHANNEL 5). THE BANE MEASUREMENT MONITORED ON RF NO. 2, CHANNEL 11, SEGMENT 81 DID NOT SHOW THIS CONDITION. THE EXACT CAUSE WAS UNKNOWN.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-CHANNEL 8 OF RF NO. 1 FUNCTIONED NORMALLY ON NUMEROUS RETESTS AND THEREFORE WAS CONSIDERED SATISFACTORY						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS POWER SOURCE	A86G-0384/PC-4CO-01-71	COMPOSITE-FACTORY	71D 600487	YES NO	YES NO	899619
FAILURE MODE-FAIL DURING OPERATION. MEASUREMENT 1341V (CONTROL RES. 9 PWR SUP) CHANNEL 12, SEGMENT 13, RF NO. 1, NAM IPERED SPIRING UP TO 19 PERCENT 18W. THE EXACT CAUSE WAS UNKNOWN.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING WAS REQUIRED.						
CORRECTIVE ACTION-REPEATED RETESTS COULD NOT DUPLICATE THIS CONDITION.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-WIRING ERS	9B-24-064	PAR	48D 600406	ETR	YES BENDIX NO 1052094-AGA	894428
FAILURE MODE-ELECTRICAL SHORT. DURING SYSTEM CHECKOUT OSCILLATOR REPORTEDLY EXHIBITED INTERMITTENT OUTPUT. FAILURE COULD NOT BE CONFIRMED. DISASSEMBLY FOUND A ONE INCH PIECE OF WIRE LOOSE BETWEEN THE TERMINAL BOARD AND OSCILLATOR C HASSIS. IT WAS CONCLUDED THAT THE WIRE HAD GENERATED A SHORT CIRCUIT BETWEEN TERMINAL PINS CAUSING THE FAILURE.						
CORRECTIVE ACTION-VENDOR TO INTENSIFY HIS INSPECTION SURVEILLANCE OF THIS COMPONENT AND IMPROVE HIS QUALITY CONTROL PRACTICES.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGE OVER SWITCH ERS	9B-24-050	PAR	48D 600322	ETR	NO KINETICS NO	899621
FAILURE MODE-ELECTRICAL OPEN. TELEMETRY CANISTER COULD NOT BE TRANSFERRED TO INTERNAL POWER. FAILURE WAS DUE TO A B URNED OUT MOTOR ARMATURE WINDING CAUSED BY CONDITIONS EXTERNAL TO THE SWITCH.						
CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TELEMETRY CANISTER ERS	AASD-0018/PI-4CO-01-48	COMPOSITE-J FACT	48D 600328	11	YES NO	899621
FAILURE MODE-OUT OF EXPECTED TEST VALUE. TELEMETRY PACKAGE RFB HAD 40 PERCENT NOISE LEVEL OUTPUT.						
SYSTEM EFFECT-ERRATIC OPERATION. TELEMETRY OUTPUT OBSCURED BY NOISE.						

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SYSTEM BUG-570-EN	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-NONE.							004010
CORRECTIVE ACTION-TELEMETRY PACKAGE REPLACED. IR493494.							003000
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A480-0180/P2-48N-03-55	COMPOSITE-FRD/DPL	55D 800381	12	NO NO		
FAILURE MODE-CONTAMINATION. NUMEROUS SENSING LINES AND TRANSDUCERS IN THE FUEL TANK PRESSURIZING SYSTEM AND THE PU SYSTEM WERE CONTAMINATED WITH FUEL AS A RESULT OF OVERFILLING THE FUEL TANK.							
SYSTEM EFFECT-CONTAMINATION.							
VEHICLE EFFECT-COMPOSITE AND TANKINGS DELAYED AND RESCHEDULED.							
CORRECTIVE ACTION-LINES AND COMPONENTS REMOVED, CLEANED, AND REINSTALLED OR REPLACED. SOME LINES AND COMPONENTS PURSED IN PLACE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER COMMUNICATOR	98-24-037	FAR	48D 900317	ETR	YES SENDIX NO		0.9230
FAILURE MODE-ELECTRICAL SHORT. COMMUTATED CHANNEL OUTPUTS WERE ERRATIC. TESTS SHOWED A 60 OHM SHORT EXISTED BETWEEN A NEGATIVE PEDESTAL SEGMENT AND A BLOCK OF INFORMATION SEGMENTS IN SECTION A OF THE COMMUNICATOR. A SHORT CIRCUIT OCCURRED WITHIN THE POTTING MATERIAL DIRECTLY BETWEEN SEGMENTS 31 AND 32.							
CORRECTIVE ACTION-VENDOR TO INTENSIFY INSPECTION SURVEILLANCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER TRANSMITTER-TUBE ELECTRONIC	98-24-080	FAR	900316	ETR	YES SENDIX NO 105060-11-28		004410
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING CHECKOUT THE CANISTER EXHIBITED NO OUTPUT. TROUBLE WAS ISOLATED TO V-3. THE QUADRUPLER TUBE, WHICH WAS FOUND TO HAVE LOW EMISSION. TUBE V-3 WAS SUBSEQUENTLY REPLACED AND THE TRANSMITTER OPERATED SATISFACTORILY.							
CORRECTIVE ACTION-UNKNOWN. THE CAUSE OF THE TUBE FAILURE WAS NOT DETERMINED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	FT4877/PL-408-00-42 COUNTDOWN	420 600300	ETR-11	YES NO		000122
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A WAS NOISY AND HAD SLIGHT CENTER FREQUENCY DRIFT.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COUNTDOWN DELAYED.						
CORRECTIVE ACTION-REPLACED TRANSMITTER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR-CIRCUIT ERS	98-24-042 FAR	200 600300	ETR	YES BENDIX NO 1040658-11M		000022
FAILURE MODE-ELECTRICAL OPEN. SUBCARRIER OSCILLATOR FOUND TO HAVE NO VOLTAGE OUTPUT. PIN 6 WHICH NORMALLY WOULD HAVE CONNECTED THE HEATER GROUND OF TUBE V-8 TYPE 6111, TO THE OSCILLATOR CIRCUIT GROUND, WAS NOT IN GOOD ELECTRICAL CONTACT WITH THE OSCILLATOR INTERNAL PRINTED GROUND CIRCUIT IN WHICH THE PIN WAS MOUNTED.						
CORRECTIVE ACTION-CONVAIR IS TAKING CORRECTIVE ACTION WITH THE VENDOR TO INTENSIFY HIS INSPECTION SURVEILLANCE ON HIS COMPONENT.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	98-24-046 FAR	290 600300	ETR	YES REED AND REESE NO 1096465-48		000877
FAILURE MODE-OUT OF TOLERANCE. DATA INDICATED THE MOTOR WAS RUNNING BELOW REQUIRED SPEED. TESTS DISCLOSED THAT THE MOTOR WAS RUNNING AT 2.5 RPS AND NOISY. DISASSEMBLY DISCLOSED MOTOR OUTPUT DRIVE GEAR RUBBING HEAVILY ON THE PLANET GEAR SUPPORT PLATE.						
CORRECTIVE ACTION-VENDOR TO INTENSIFY INSPECTION SURVEILLANCE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	98-24-045 FAR	600300	ETR	YES REED AND REESE NO 1096465-66		
FAILURE MODE-ELECTRICAL OPEN. THE MOTOR OPERATED BELOW THE REQUIRED SPEED. THE MOTOR RAN AT 28.6 RPS ANALYSIS DISCLOSED THAT AN ARMATURE CONDUCTOR COMMUTATOR SEGMENT CONNECTION WAS NOT SOLDERED AT THE SEGMENT, WHICH RESULTED IN AN INTERMITTENT ELECTRICAL CONNECTION.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-VENDOR TO INTENSIFY INSPECTION SURVEILLANCE.							898267
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY, TRANSISTOR ERS	98-24-031	FAR	42D	ETR	YES BENDIX	NO 1051450-28	898282
	FAILURE MODE-FAILED DURING OPERATION. POWER SUPPLY EXHIBITED NO OUTPUT DURING CHECKOUT PROCEDURES. EMITTER PIN OF # 202, AN AMPLIFIER TRANSISTOR, HAD BURNED OPEN. AMPLIFIER TRANSISTORS 9203 AND 9204 HAD BASE TO COLLECTOR AND EMITTER TO COLLECTOR SHORTS. IT IS BELIEVED THAT THE PRIMARY CAUSE OF FAILURE WAS AN INTERNAL COMPONENT MALFUNCTION.						
CORRECTIVE ACTION-VENDOR TO INTENSIFY INSPECTION AND TESTING OF SUBJECT PART AND TRANSISTORS.							898279
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	98-24-048	FAR	600224	ETR	YES BENDIX	NO	
	FAILURE MODE-STRUCTURAL. FAILURE DUE TO INADEQUATE STRENGTH OF SOFT SOLDERED COUPLER LAPJOINT AND IMPROPER SERVICING & OR ASSEMBLY TECHNIQUES.						
CORRECTIVE ACTION-LAP JOINT NOW BEING SILVER BRAZED TO INCREASE STRENGTH OF JOINT. IMPROVED COMMUTATOR SERVICING IN STITUTED.							898272
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	98-24-058	FAR	42D	ETR	YES BENDIX	NO 1050283-36A	
	FAILURE MODE-FAIL DURING OPERATION. THE OSCILLATOR EXHIBITED NO OUT PUT DURING SYSTEM CHECKOUT.						
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR-POTENTIOMETER ERS	98-24-059	FAR	42D	ETR	YES BENDIX	NO 1050283-36A	
	FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR EXHIBITED LOW AMPLITUDE OUTPUT. OUTPUT POTENTIOMETER, R-20, COULD NOT BE ADJUSTED. ANALYSIS SHOWED THAT THE WIPER WAS POSITIONED AT ONE EXTREME OF ITS TRAVEL AND A SHOULDER OF THE ADJUSTING SLOT WAS BROKEN. CAUSE OF FAILURE DUE TO HIGH RESISTANCE BETWEEN THE WIPER AND WINDING OF THE OUTPUT POTENTIOMETER.						
PAGE DATA							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							890260
CORRECTIVE ACTION-IMPROVED OSCILLATOR ADJUSTING METHODS TO REDUCE THE POSSIBILITY OF DAMAGE TO THE ADJUSTING SLOT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR ERS	98-24-089 OSCILLATOR	FAR	420 800210	ETR	YES NO	BENDIX 105C785-11MA	894421
FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR EXHIBITED NON LINEAR CHARACTERISTICS DURING SYSTEMS CHECKOUT. CAUSE OF FAILURE WAS NOT DETERMINED.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	98-24-049 COMMUTATOR	FAR	490 800208	ETR	YES NO	REED AND REESE 1086495-49	890273
FAILURE MODE-FAIL DURING OPERATION. MOTOR STOPPED DURING CHECKOUT OPERATIONS.							
CORRECTIVE ACTION-NONE FAILURE NOT CONFIRMED. TESTS SHOWED THE MOTOR OPERATION TO BE SATISFACTORY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	98-24-032 POWER SUPPLY	FAR	800208	ETR	YES NO	BENDIX TFF104	894419
FAILURE MODE-ERRATIC OPERATION. THE POWER SUPPLY REPORTEDLY HAD ERRATIC AND UNSTABLE OUTPUT. FAILURE NOT CONFIRMED. BELIEVED CAUSED BY 80 CES EXTERNAL TO THE POWER SUPPLY.							
CORRECTIVE ACTION-UNKNOWN. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	98-24-049 COMMUTATOR	FAR	800208	ETR	YES NO	BENDIX	
FAILURE MODE-STRUCTURAL. DATA SHOWED ROTATIONAL SPEED TO BE LOW. LAPJOINT IN COUPLER WAS UNSOLDERED AND SCRATCHED. FAILURE WAS DUE TO INADEQUATE STRENGTH OF THE SOFT SOLDERED LAP JOINT AND IMPROPER SERVICING OR ASSEMBLY TECHNIQUES.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-COUPLER LAP JOINT NOW BEING SILVER BRAZED TO INCREASE STRENGTH OF JOINT. CONVAIR HAS TAKEN STEPS TO IMPROVE COMMUTATOR SERVICING.						
INSTRUMENTATION-A/B 68-24-038 TELEMETRY SET AND TRANSDUC TLM SUBCARRIER OSCILLATOR. TUBE V- ERS 2, TYPE 6111						
		FAR	2UD 600200	ETR	YES	BENDIX PACIFIC NO 1040630-15M
FAILURE MODE-DRIFT. OUTPUT FREQUENCY DRIEFTD DURING APPLICATION OF CONSTANT VOLTAGE.						
CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN AS FAILURE HISTORY DID NOT REVEAL OTHER FAILURES OF TYPE 6111 TUBE.						
INSTRUMENTATION-A/B 90-24-054 TELEMETRY SET AND TRANSDUC OSCILLATOR ERS						
		FAR	51D 600129	ETR	YES	BENDIX NO 1041980-7T
FAILURE MODE-ERRATIC OPERATION. OSCILLATOR EXHIBITED EXCESSIVE FREQUENCY DEVIATION ON THE LOW SIDE OF THE BAND. DIS ASSEMBLY DISCLOSED THAT CAPACITOR C-4 HAD AN EXCESSIVELY HIGH DISSIPATION FACTOR (11 PCT), ULTIMATELY DISSIPATING EX CESSIVE POWER, RESULTING IN NO OUTPUT.						
CORRECTIVE ACTION-VENDOR INFORMED OF THE CAPACITOR DISCREPANCY.						
INSTRUMENTATION-A/B FT6304/P4-4CO-01-29 TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS						
		COMPOSITE-B FACT	29D 600128	14	YES	
FAILURE MODE-ERRATIC OPERATION. COMMUTATION RATE OF TELEMETRY CHANNEL 13 WAS CONSTANTLY CHANGING DURING TEST. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-COMMUTATOR DRIVE MOTOR WAS REPLACED.						
INSTRUMENTATION-A/B FT6306/P4-4CO-01-29 TELEMETRY SET AND TRANSDUC TLM CANISTER ERS						
		COMPOSITE-B FACT	29D 600128	ETR-14	YES	
FAILURE MODE-OUT OF TOLERANCE. RANDOM NOISE WAS EXPERIENCED ON SUBCARRIER A THROUGHOUT TEST. SYSTEM EFFECT-ERRATIC OPERATION.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS	PTAS84/P4-4CO-01-29	COMPOSITE-B FACT	29D 800128	14 NO	YES	
FAILURE MODE-OUT OF TOLERANCE. SUBCARRIER 13 COMMUTATION RATE WAS CHANGING DURING TEST. AT END OF TEST WAS RUNNING AT 2.0 RPS. NOMINAL RATE IS 3.0 RPS. SYSTEM EFFECT-ERRATIC OPERATION. COMMUTATION RATE FOR SUBCARRIER 13 WAS CONSTANTLY CHANGING AND SLOWING DOWN DURING TEST. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-COMMUTATOR DRIVE MOTOR WAS REPLACED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CARIBIER ERS	PTAS84/P4-4CO-01-29	COMPOSITE-B FACT	29D 800128	LTR-14 D	NO NO	
FAILURE MODE-OUT OF TOLERANCE INTERFERENCE ON ALL TELEMETRY CHANNELS DURING UNBILICAL EJECTION. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SWITCH CHANGEOVER MOTOR ERS	3D-24-073	FAR	800108	WTR	YES 27-12390-3 NO	
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. SIGNAL CONDITIONER FAILED TO TRANSFER 28 VDC POWER FROM INTERNAL TO EXTERNAL. POWER CHANGE OVER SWITCH MOTOR FAILURE CAUSED THE PROBLEM. CORRECTIVE ACTION-UNKNOWN. VENDOR INFORMED OF PROBLEM.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	9S-24-037	FAR	15D 800108	CTR	YES BENDIX NO 1048830-3	
FAILURE MODE-OUT OF SPECIFICATION.DURING CHECKOUT THE REPETITIVE RATE OF CHANNEL E COMMUNICATION WAS FLUCTUATING. D						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
DISASSEMBLY OF THE COMMUTATOR ASSEMBLY SHOWED THAT THE MECHANICAL COUPLER HAD SEPARATED AT THE SOLDERED BEAM AND ALLOWED THE COUPLER TO RUB ON THE COMMUTATOR HOUSING.						
CORRECTIVE ACTION-CONVAIR IS TAKING CORRECTIVE ACTION TO HAVE THE VENDOR MONITOR HIS COMMUTATOR ASSEMBLY AREA FOR THIS DISCREPANCY.						
INSTRUMENTATION-A/B	98-24-034	FAR	200	ETR	YES	BENDIX
TELEMETRY SET AND TRANSDUCER	TELEMETRY COMMUTATOR ASSEMBLY-30 R		600100		NO	1047382A
ERS	PS					
FAILURE MODE-OUT OF SPECIFICATION. DURING CHECKOUT OF THE TLM CANISTERS AT ETR TLM LAB, THE COMMUTATOR ASSEMBLY OPERATED WITH AN AUDIBLE GRINDING SOUND. DISASSEMBLY OF THE COMMUTATOR ASSEMBLY DISCLOSED WEAR ON THE THIN STEEL DISC WHICH IS USED TO RETAIN THE MOVABLE PARTS OF THE PLANETARY GEAR SYSTEM IN THE MOTOR SPEED REDUCTION SECTION. THE DISC WAS ALSO WARPED. THE AUDIBLE NOISE WAS CAUSED BY THE RUBBING OF THE PLANET GEARS AGAINST THE RETAINER DISC. THE PROXIMITY OF THE PLANET GEARS TO THE RETAINING DISC IS SUCH THAT A SLIGHT DISC WARPAGE OR ASSEMBLY ALIGNMENT WILL INCREASE THE PRESSURE OF CONTACT.						
CORRECTIVE ACTION-CONVAIR IS TAKING CORRECTIVE ACTION WITH VENDOR TO ELIMINATE THIS PROBLEM AREA.						
INSTRUMENTATION-A/B	98-24-040	FAR	420	ETR	YES	BENDIX PACIFIC
TELEMETRY SET AND TRANSDUCER	TELEMETRY TLM SUBCARRIER OSCILLATOR		600100		NO	1052024-126A
ERS						
FAILURE MODE-SHORT (ELECT.). THE SENSITIVITY POTENTIOMETER DID NOT EXERCISE FREQUENCY CONTROL OVER ITS COMPLETE RANGE DUE TO PIN CONNECTED AT HIGH POTENTIAL END OF POT WHICH HAD BEEN SHORTED TO GROUND BY EXTRANEOUS SOLDER.						
CORRECTIVE ACTION-VENDOR TO INTENSIFY INSPECTION SURVEILLANCE ON THIS COMPONENT.						
INSTRUMENTATION-A/B	98-24-033	FAR	440		YES	REED AND REESE
TELEMETRY SET AND TRANSDUCER	COMMUTATOR, MOTOR		600100		NO	1094483-88
ERS						
FAILURE MODE-STRUCTURAL. DURING CHECKOUT OF THE TLM CANISTERS AT ETR TLM LAB, THE COMMUTATOR MOTOR OPERATED WITH AN AUDIBLE GRINDING SOUND. DISASSEMBLY OF THE MOTOR DISCLOSED THAT THE STEEL RETAINING DISK IN THE MOTOR HAD A SURFACE SCRATCH WHICH CAUSED THE OPPOSITE SIDE TO PROTRUDE BEYOND THE NORMAL POSITION.						
CORRECTIVE ACTION-THE PROXIMITY OF THE PLANET GEARS TO THE RETAINING DISK IS SUCH THAT A SLIGHT DISK WARPAGE OR ANY Y. MISALIGNMENT WILL INCREASE THE PRESSURE OF CONTACT, AND THEREBY INTENSIFY THE AUDIBLE SOUND. CONVAIR IS TAKING CORRECTIVE ACTION WITH THE VENDOR TO ELIMINATE THIS PROBLEM AREA.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PR1 VENDOR PART NO	VEHICLE NAME
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	98-24-033 98-24-033 TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR	FAR	800 89000	ETR	YES NO	YES REED AND REESE NO 1036493-35
<p>FAILURE MODE-CONTAMINATION. THE RESISTANCE OF THE MOTOR ARMATURE CIRCUIT WAS FOUND TO BE ABNORMALLY HIGH AND SHALL MOVEMENT OF THE BRUSHES IN THE DIRECTION OF THE ROTOR AXIS WOULD VARY THE RESISTANCE. DISASSEMBLY OF THE MOTOR SHOWED THAT A FILM OF ADHERING BRUSH MATERIAL WAS ON THE MOTOR COMMUTATOR.</p> <p>CORRECTIVE ACTION-CONVAIN WILL MAINTAIN SURVEILLANCE OF THIS TYPE OF PROBLEM AND WILL INITIATE CORRECTIVE ACTION WITH THE VENDOR.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	AFN-27-484/P3-4CO-01-31 TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR	COMPOSITE-FACTORY	510 591222	FACTORY	YES NO	
<p>FAILURE MODE-OUT OF EXPECTED TEST VALUE. MEASUREMENTS 82610 (V2 YAW) AND 82590 (V2 PITCH ROLL) CHANNEL E, SEGMENTS 9 AND 35 AND ALSO 17 AND 47, INDICATED THE SAME ENGINE MOVEMENTS. THE TWO SEGMENTS WERE FOUND TO HAVE BEEN JUMPERED TOGETHER. PACKAGE WAS REMOVED.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. V2 YAW AND V2 PITCH ROLL INDICATED THE SAME. CROSS COUPLED AT COMMUTATOR.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED. POST-COMPOSITE TEST REQUIRED AFTER REMOVAL TO VERIFY PROPER OPERATION.</p> <p>CORRECTIVE ACTION-THE ACCESSORY PACKAGE WAS REMOVED AND REMOVED.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	FT4830/P3-49H-01-40 TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR	COMPOSITE-FRD/DPL	400 591214	ETR	YES NO	
<p>FAILURE MODE-ERRATIC OPERATION. CHANNEL C SYNC PULSE WAS ERRATIC DUE TO A LOOSE WIRE IN THE TELEMETRY PACKAGE.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM CHANNEL C WAS ADVERSELY AFFECTED.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-PACKAGE WAS REPAIRED IN THE TELEMETRY LAB.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	98-24-031 TELEMETRY SET AND TRANSDUC COMMUTATOR	FAR	130 591800	ETR	NO NO	NO BENDIX NO 1047388
<p>FAILURE MODE-OUT OF TOLERANCE. OPERATED BELOW THE REQUIRED SPEED. FAILURE NOT CONFIRMED. BELIEVED THAT EXCESSIVE TO LEAKAGE OF THE MOTOR COMMUTATOR TOTAL INDICATED RADIUS AND THE USE OF AN INCORRECT SHAPE OF BRUSHES ARE THE MAIN CONTRIBUTING CAUSES OF THE FAILURE.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
							099102
	CORRECTIVE ACTION-CONVAIR IS MAINTAINING SURVEILLANCE OF THIS TYPE OF FAILURE AND WILL INITIATE CORRECTIVE ACTION WITH THE VENDOR.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	98-24-031	FAR	200 591200	ETR	YES REED AND REESE NO 1096483	095670
	FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATOR MOTOR WAS TESTED AND THE REPORTED FAILURE COULD NOT BE DUPLICATED. DISASSEMBLY OF THE MOTOR DISCLOSED THAT THERE WAS AN EXCESSIVE QUANTITY OF FREE BRUSH MATERIAL IN THE BRUSH RETAINING END CAP. IT IS BELIEVED THAT EXCESSIVE TOLERANCE OF THE MOTOR COMMUTATOR TOTAL INDICATED RADIUS AND THE USE OF AN IN CORRECT GRADE OF BRUSHES ARE THE MAIN CONTRIBUTING CAUSES OF THE FAILURES.						
	CORRECTIVE ACTION-CONVAIR IS MAINTAINING SURVEILLANCE OF THIS TYPE OF FAILURE AND WILL INITIATE CORRECTIVE ACTION WITH THE VENDOR.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR-MOTOR ERS	98-24-032	FAR	591200	ETR	YES REED AND REESE NO 1096483-33	094890
	FAILURE MODE-OPEN (ELECT). THE MOTOR WAS DISASSEMBLED AND FAILURE ANALYSIS DISCLOSED THAT AN ARMATURE CONDUCTOR WAS BROKEN AT THE FRONT END TURN. THE BROKEN CONDUCTOR CAUSED AN OPEN CIRCUIT BETWEEN THE COMMUTATOR SEGMENT AND THE ARMATURE CIRCUIT, RESULTING IN MOTOR FAILURE.						
	CORRECTIVE ACTION-CONVAIR NOTIFIED THE VENDOR THAT A MANUFACTURING DISCREPANCY WAS THE INDIRECT CAUSE OF THE FAILURE.						
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AFN-27-407/PC-4CO-48	COMPOSITE-FACTORY	430 591110	FACTORY	YES NO	098480
	FAILURE MODE-OUT OF EXPECTED TEST VALUE. TLM MEASUREMENT 82260 (SUSTAINER VAN) CHANNEL 4 WAS OPERATING AT 63 PCT INSTEAD OF THE EXPECTED 50 PCT. 18W PRIOR TO SUSTAINER ACTIVATION AFTER STAGING. SYSTEM EFFECT-OPERATION TOO HIGH.						
	CORRECTIVE ACTION-EOP 330.38A WAS ACCOMPLISHED CORRECTING THIS IRREGULARITY.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TIME	SITE DIP TIME	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CIRCUITS-TLM ACCESSORY PACKAGE ERS	PTA8340/P4-4CO-01-20	COMPOSITE-B FACT	200 14	YES	NO	098404
<p>FAILURE MODE-OUT OF SPECIFICATION. CROSS COUPLING IN TELEMETRY ACCESSORY PACKAGE RESULTED IN ERRONEOUS DATA.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. TELEMETRY DATA OF RATE GYRO INFORMATION IMPROPERLY REFLECTED GUIDANCE STEERING COMMANDS DUE TO CROSS COUPLING IN TELEMETRY ACCESSORY PACKAGE.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-REPLACED TELEMETRY ACCESSORY PACKAGE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC STAGING DISCONNECT PLUG-WIRING ERS	A7M-27-388/JFC-4CO-01-40	COMPOSITE-FACTORY 400	291016	FACTORY	YES	098508
<p>FAILURE MODE-FAIL DURING OPERATION-TWELVE MEASUREMENTS INDICATED ERRONEOUS OUTPUTS BECAUSE THE STAGING PLUG P3004 WAS FOUND TO BE LOOSE.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. TLM MEASUREMENTS WERE ERRONEOUS BECAUSE OF A LOOSE STAGING PLUG.</p> <p>VEHICLE EFFECT-COMPOSITE RECHECKED. RETURN OF COMPOSITE MADE.</p> <p>CORRECTIVE ACTION-NOT KNOWN.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS POWER SOURCE	A1C-27-081/P3-401-00-22	FLIGHT	220 141.3	ETR-13	YES	098638
<p>FAILURE MODE-SHORT (ELECT). FROM 141.3 TO 147.3 SECONDS AND 299.9 TO 300 SECONDS THE TRANSDUCER POWER SUPPLY DROPPED SIGNIFICANTLY AND FLUCTUATED INTERMITTENTLY. PROBABLY CAUSED BY A SHORT IN A TRANSDUCER OR ASSOCIATED CIRCUITRY.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION. INTERFERENCE WAS NOTED ON ALL MEASUREMENTS USING THAT POWER SUPPLY.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-NONE.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	DP-24-047	PAR	291009	SAN DIEGO	YES	098708
<p>FAILURE MODE-ERRATIC OPERATION. TRANSDUCER OUTPUT APPEARED TO OSCILLATE AND WAS SLUGGISH IN RESPONSE.</p>						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILURE COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SIZE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
	CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.					
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	FTAS175/P2-301-00-08 FRF	9C 890924	18/ETR -760	YES NO	
	FAILURE MODE-FAIL DURING OPERATION. POWER SUPPLY FAILED. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. TELEMETRY RECEPTION WAS LOST AT THE GROUND STATION. VEHICLE EFFECT-COUNTDOWN DELAYED. 153 MINUTES HOLD 57 MINUTES RECYCLE. CORRECTIVE ACTION-CHANGED RF PACKAGE AND POWER SUPPLY.					
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC OSCILLATOR TELEMETRY PACKAGE ERS	FTAS175/P2-301-00-08 FRF	9C 890924	18/ETR -760	YES NO	
	FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR OUT OF ADJUSTMENT. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. FALSE DATA MEASUREMENT PLOT. SUSTAINER YAW. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE. VEHICLE WAS DESTROYED DURING TEST.					
	INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS POWER SOURCE	AZC-27-078/P3-404-00-17 FLIGHT	17D 890918	ETR-15 138.6	YES NO	
	FAILURE MODE-SHORT ELECT. AT 138.6 SECONDS THE TRANSDUCER POWER SUPPLY OUTPUT DROPPED SHARPLY, THEN FLUCTUATED UNTIL L 147.6 SECONDS WHEN IT RETURNED TO NORMAL. ATTRIBUTED TO A MINOR SHORT IN THE TRANSDUCER OR WIRING ASSOCIATED WITH MEASUREMENT P200. FUEL STAGING VALVE SEPARATION. FLUCTUATIONS OF LESSER MAGNITUDES WERE NOTED BETWEEN 8 AND 34.3 SE CONDS. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. THE OUTPUTS OF THE TRANSDUCERS EXCITED BY THAT POWER SUPPLY WERE CONSIDERED QUALITATIVE ONLY DURING THAT TIME INTERVAL. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.					
	CORRECTIVE ACTION-NONE.					

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY-WIRING ERS	AZ-87-084/AE-408-00-18 FAILED COMPONENT NAME	FLIGHT	120 890809	A-2 112.3	YES NO		890800
FAILURE MODE-ELECTRICAL SHORT. THE TRANSDUCER POWER SUPPLY OUTPUT VOLTAGE DROPPED TO ZERO VOLTS FROM 112.3 TO 194.9 SECONDS, INDICATING A SHORT IN THE INSTRUMENTATION CIRCUIT.							
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. LOSS OF ALL TELEMETRY MEASUREMENTS BETWEEN 112.3 AND 194.9 SECONDS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BRIDGE CIRCUIT WIRING ERS	FTAB132/PS-4CO-02-17 FAILED COMPONENT NAME	COMPOSITE-B FACT	170 890831	13	YES NO		891013
FAILURE MODE-ELECTRICAL SHORT. EXCITATION VOLTAGE FOR ALL TEMPERATURE MEASUREMENTS WAS LOST. THE TEMPERATURE BRIDGE WAS GROUNDED.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM ALL TEMPERATURE MEASUREMENTS WERE LOST.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FTAB199/PI-4CO-01-15 FAILED COMPONENT NAME	COMPOSITE-B FACT	150 890817	ETR-11	YES NO		891013
FAILURE MODE-OUT OF SPECIFICATION. RFI CHANNEL A WAS EXTREMELY NOISY.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. RFI CHANNEL A WAS EXTREMELY NOISY.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	FTAB199/PI-4CO-01-15 FAILED COMPONENT NAME	COMPOSITE-B FACT	150 890817	11	YES NO		
FAILURE MODE-ERRATIC OPERATION. RFI CHANNELS A AND C WERE CHANGING COMMUTATION RATE. THIS CHANGING COMMUTATION RATE MADE IT IMPOSSIBLE TO PROPERLY DECOMMUTATE THESE CHANNELS.							
SYSTEM EFFECT-ERRATIC OPERATION. DATA ANALYSIS WAS DIFFICULT.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	98-24-088 INSTRUMENTATION	FAR 7-01720-1	14D 590800	ETR	YES NO	SERVONIC INSTRUMENTS INC
FAILURE MODE-CONTAMINATION. TRANSDUCER LOCATED NEAR THE LOWER FAIRING OF VERNIER 1 ENGINE EXPLODED AT LIQUID OXYGEN START TANK PRESSURIZATION DURING A STATIC TEST. A HOLE WAS BLOWN IN THE OUTER SHELL AND THE BOURDON TUBE AND DAMPING FLUID WERE BLOWN OUT-SEVERAL SIMILAR TRANSDUCERS WERE EXAMINED AND FOUND TO HAVE OIL NOT COMPATIBLE WITH LIQUID OXYGEN IN THE PRESSURE FITTING. IT WAS THIS MISC-COMPATIBILITY OF CONTAMINANT AND LIQUID OXYGEN THAT CAUSED THE FAILURE RESULTING IN AN IMPACT SENSITIVE CONDITION. IT IS KNOWN FROM STATIC TESTS THAT A PRESSURE SPIKE IS PRESENT AT THE TIME OF LIQUID OXYGEN START TANK PRESSURIZATION.						
CORRECTIVE ACTION-CONVAIR HAS REJECTED ALL TRANSDUCERS OF THIS PART NUMBER IN THE FIELD. THEY WILL RETURN TO SAN DIEGO FOR CLEANING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	98-24-088 INSTRUMENTATION	FAR 7-01720-1	14D 590800	ETR	YES NO	SERVONIC INSTRUMENTS INC
FAILURE MODE-OUT OF TOLERANCE. CALIBRATION REAGENT 23 ON CHANNEL C OF RF 2 WAS OUT OF BAND FOR 300 SECONDS. THE SIN C PULSE WAS OUT OF BAND FOR 7 SECONDS AT START OF TEST. POSSIBLE CAUSE-INSUFFICIENT WARM-UP OR HIGHER THAN NORMAL INPUT VOLTAGE.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. THE CALIBRATION SIGNAL WAS TOO HIGH. THIS WOULD CAUSE ERROR IN DATA.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-NONE. CONSIDERED ACCEPTABLE DUE TO PROPER OPERATION DURING PREVIOUS FACTORY TESTING.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-RECTIFIER ERS	98-24-088 INSTRUMENTATION	FAR 7-01720-1	14D 590800	ETR	YES NO	SERVONIC INSTRUMENTS INC
FAILURE MODE-OUT OF TOLERANCE. TELEMETRY ACCESSORY PACKAGE NOT PROPERLY CALIBRATED. INVERTER OUTPUT VOLTAGE INDICATED 8 VAC HIGHER THAN WAS OBTAINED FROM DIRECT LINE MEASUREMENTS.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED.						
CORRECTIVE ACTION-RECALIBRATED CRYSTAL RECTIFIER ASSEMBLY WITHIN TELEMETRY ACCESSORY PACKAGE. PROPER OPERATION VERIFIED.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
FIELD DURING COMPOSITE RETEST.							001964
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC R.F. AMPLIFIER TAV-5 MOTOR ERS	98-24-010	PAR	30 840300	ETR	YES	BENDIX PACIFIC NO 1049688	004087
FAILURE MODE-OPERATION STOPS PREMATURELY DUE TO INADEQUATE DESIGN OF THE WESTERN GEAR SLOWER MOTOR. CORRECTIVE ACTION-BENDIX HAS CONTRACTED TO HAVE A MOTOR OF BETTER DESIGN BUILT TO THEIR SPECIFICATION BY THE MOTOR VENDOR, WESTERN GEAR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC 100 WATT R.F. AMPLIFIER TAV-5 ERS	98-24-010	PAR	7C 890300	ETR	YES	BENDIX-PACIFIC NO 1028672-1	004029
FAILURE MODE-FAIL DURING OPERATION-THE OUTPUT TUNING CAPACITOR OF THE TAV-5 HAD OVERHEATED AND OPENED. THE TAV-5 FA ILED BECAUSE THE FINAL TUNING STAGE WAS DETUNED DUE TO THE CAPACITOR CHANGING VALUE FROM THE TEMPERATURES WITHIN THE TAV-5 OR FROM DETUNING OF THE CIRCUITRY, EXTERNAL TO THE TAV-5. CORRECTIVE ACTION-A NEW TYPE OF TUNING CAPACITOR IS BEING USED IN D SERIES R.F. AMPLIFIERS, WHICH WILL TOLERATE HIG HER TEMPERATURES. BASE PERSONNEL WERE INSTRUCTED TO NOT OPERATE TAV-5 AMPLIFIERS WITH IMPROPER EXTERNAL LOADS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC IMFLIGHT CALIBRATOR ERS	A2N-27-287/PC-4CO-02-14	COMPOSITE-FACTORY	14D 890422		YES NO		006352
FAILURE MODE-OUT OF TOLERANCE. THE ACCESSORY PACKAGE WAS REMOVED DUE TO AN IMFLIGHT CALIBRATOR MALFUNCTION ON CHAN NCL 9. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. A FAULTY CALIBRATOR WOULD RESULT IN ERRORS IN THE VALUE OF REDUCED DATA. VEHICLE EFFECT-COMPOSITE RESCHEDULED. COMPOSITE RETEST REQUIRED. CORRECTIVE ACTION-ACCESSORY PACKAGE WAS REPAIRED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC MOTOR ERS	FTA 4700/P3-401-00-03	PRF	30 890387	13	YES NO		
FAILURE MODE-FAIL DURING OPERATION. COOLING FAN MOTOR OPERATION WAS INTERMITTENT CAUSING EXCESSIVE HEATING OF TAV 5 FINAL POWER AMPLIFIER.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT. OVER HEATING OF FINAL POWER AMPLIFIER. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPAIRED FAN MOTOR.							091147
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	FTA 4700/PS-401-00-03	PRF	30 590327	13	YES NO		091144
FAILURE MODE-OUT OF TOLERANCE. COMMUTATION RATES FOR CHANNELS 11 AND E FLUCTUATED IN SPEED OUTSIDE SPECIFIED LIMITS SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-CHANGED COMMUTATOR MOTORS.							091145
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	FTA 4700/PS-401-00-03	PRF	30 590327	13	NO NO		091145
FAILURE MODE-FAIL DURING OPERATION. EXCESSIVE HEATING OF THE TAV 3 FINAL POWER AMPLIFIER CAUSED BY AN INTERMITTENT COOLING FAN MOTOR. DISCOVERED WHEN CANISTER WAS OPENED TO REPLACE COMMUTATOR MOTORS. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACED AMPLIFIER FOR SYSTEM CONFIDENCE.							091147
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLY ERS	2N-7-671/FC-3CO-01-09	COMPOSITE-FACTORY	SC 590320	FACTORY	YES NO		091147
FAILURE MODE-ERRATIC OPERATION-ERRATIC EXCITATION DETERMINED AT TWO TELEMETRY MEASUREMENTS (PS10 AND 833R). TRACED TO POWER SUPPLY. SYSTEM EFFECT-ERRATIC OPERATION. FAULTY POWER SUPPLY CAUSED ERRATIC SIGNALS TO BE TRANSMITTED. VEHICLE EFFECT-COMPOSITE DELAYED OR RE-SCHEDULED. COMPLETE COMPOSITE RETEST PERFORMED. CORRECTIVE ACTION-TRANSDUCER POWER SUPPLY REPLACED.							091147

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR E88	A2N-27-160/FC-4CO-DIA-08	COMPOSITE-FACTORY 50	990220	YES	NO	991969
FAILURE MODE-OUT OF TOLERANCE. COMMUNICATOR SPEED WAS 7 AND ONE-HALF PERCENT BELOW MINIMUM TOLERANCE. SYSTEM EFFECT-NONE. VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST COMPOSITE RETEST VERIFIED ACCEPTABLE OPERATION. CONNECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR E88	FTA4586/P2-38N-02-03 SUBCARRIER OSCILLATOR	COMPOSITE-B FACT	5C 590219	12 50	YES NO	992709
FAILURE MODE-ERRATIC OPERATION. RF1 CHANNEL A SUBCARRIER OSCILLATOR HAD A SHIFT IN FREQUENCY FOR ABOUT 10 SECONDS DURING THE PLUS COUNT. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR E88	A2N-27-178/FC-4CO-01-03 TLM CANISTER	COMPOSITE-FACTORY 3D	590210	NO	NO	993937
FAILURE MODE-OUT OF TOLERANCE. 6289V DECODER MESSAGE READ 94 PCT IDN 162 PCT SPECIFIED) EXCEPT DURING SYNC. ERROR, AT WHICH TIME IT READ 72 PCT. (6 PCT. EXPECTED). THE VOLTAGE OUT OF THE DECODER IS NEGATIVE. WHILE THE SEGMENT USED FOR THIS MEASUREMENT WAS DESIGNED FOR A POSITIVE INPUT. VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING REQUIRED. CORRECTIVE ACTION-TELEMETRY DESIGN PERSONNEL DEVELOPED A METHOD OF INTERPRETING THE INFORMATION PRESENTED ON THIS SEGMENT. (READ THE SEGMENT AS IF A POSITIVE VOLTAGE WERE APPLIED, MULTIPLY THIS RESULT BY THREE (3) AND SUBTRACT FROM 100 PCT) THIS VALUE SHOULD CORRESPOND TO ACTUAL DECODER OUTPUT. THIS CONDITION PREVAILED ON 30, 50, 70 AND 110.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUNICATOR E88	FTA 4378/P1-208-03-11 COMMUNICATOR	COUNTDOWN	110 990204	11 -780	YES NO	991969
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE RF 3 CHANNEL C AND E COMMUNICATORS FAILED TO OPERATE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
SYSTEM EFFECT-OPERATION DOES NOT START. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGEOVER SWITCH ERS	98-24-014	FAR 7-01733-1	4C 590200	ETR	YES KINETICS NO M-199-1	990103
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. WHEN SWITCH WAS DRIVEN TO INTERNAL POSITION, PIN PORTION OF THE 82 CONTACT WAS NOT MAINTAINING CONTACT WITH THE SPRING LOADED PORTION OF THE SOCKET, ALTHOUGH THE PIN WAS STILL INSERTED WELL INTO THE SOCKET.						
CORRECTIVE ACTION-VENDOR NOTIFIED OF DISCREPANCY VENDOR WILL LENGTHEN THE PIN PORTION OF 82 OR ADJUST THE STROKE OF THE PIN MOUNTING BOARD, SO AS TO INSURE THAT DURING THE NORMAL CYCLIC LIFE OF THE SWITCH THE 82 PIN WILL REMAIN IN CONTACT WITH THE SPRING LOADED PORTION OF THE SOCKET.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CARTRIDGE ERS	FTA4515/P2-302-00-04	COUNTDOWN	4C 590123	ETR-12 -4200	YES NO	993693
FAILURE MODE-OUT OF TOLERANCE. AFTER RECYCLING TO T-70 AND DETANKING, WHILE CHECKING NEW BATTERIES BY TELEMETRY OPERATION, EXCITATION TO SUBCARRIERS A AND E OF RF1 WAS FOUND ABOUT HALF OF NORMAL.						
SYSTEM EFFECT-OPERATION TOO LOW.						
VEHICLE EFFECT-COUNTDOWN DELAYED.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CARTRIDGE ERS	FTA4516/P2-302-00-03	COUNTDOWN	3C 591223	ETR-12 -360	YES NO	994336
FAILURE MODE-FAIL DURING OPERATION. TELEMETRY RF1 CHANNEL C WAS LOST.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. RF1 CHANNEL C INOPERATIVE. LAUNCHED VEHICLE WITHOUT THIS CHANNEL.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC WIRING ERS	ZC-7-215/P2-302-00-03 TELEMETRY SET AND TRANSDUC WIRING ERS	FLIGHT	3C 301223	12 149.4	YES NO		996676
<p>FAILURE MODE-ELECTRICAL SHORT. POWER SUPPLY VOLTAGES DROPPED FROM 2.52 AND 0.47 VOLTS TO 0.85 AND 0.19 VOLTS RESPECTIVELY. CAUSE CONCLUDED TO BE SHORT IN WIRING TO SUSTAINER CONTROL HE BOTTLE PRESSURE TRANSDUCER OCCURRING DURING BOOST SECTION JETTISON. POSSIBLE FAULT IN ROUTING OF WIRING ALLOWED DAMAGE TO WIRE AT JETTISON.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION. VOLTAGES SUPPLIED TO TRANSDUCERS EXCITED BY THIS POWER SUPPLY WERE NOT NOMINAL DURING SUSTAINER AND VERNIER PHASES SO THAT THE TRANSDUCER OUTPUTS(12) WERE QUESTIONABLE AND SPECIAL PROCESSING WAS REQUIRED FOR PARTIAL RECOVERY OF AFFECTED DATA.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-INSTALLED ISOLATION PROTECTION BETWEEN TLM POWER SUPPLY AND TRANSDUCERS.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	ZC-7-215/P2-302-00-03 TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	FLIGHT	3C 301223	12 128.9	YES NO	YES GO CONVAIR	996677
<p>FAILURE MODE-FAIL DURING OPERATION. RF 2 CHANNEL 13 COMMUTATOR CEASED OPERATION. REASON FOR FAILURE NOT DETERMINED.</p> <p>SYSTEM EFFECT-OPERATION STOPS PREMATURELY. FAILURE OF RF 2 COMMUTATOR RESULTED IN LOSS OF 21 TELEMETRY MEASUREMENTS 20 OF WHICH WOULD HAVE OPERATED DURING SUSTAINER PHASE IF NOT LOST.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONNECTOR-WIRING ERS	PTA-4411/P4-203-00-12 TELEMETRY SET AND TRANSDUC CONNECTOR-WIRING ERS	COUNTDOWN	12B 301129	14 -10200	YES NO		996678
<p>FAILURE MODE-ELECTRICAL OPEN. PLUS P172 AT THE ACCESSORY PACKAGE WAS NOT PROPERLY INSTALLED AND CERTAIN SIGNALS WERE NOT PRESENT ON TELEMETRY.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. CALIBRATE PULSES MISSING ON SUBCARRIERS 10 AND 13, AND RATE GYRO BIAS WAS MISSING.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-PLUGS WERE TIGHTENED.</p>							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER-TELEMETRY ERS	FTA 4404/P4-208-00-18 TELEMETRY SET AND TRANSDUCER-TELEMETRY ERS	PRF	12B 981124	14	YES NO	
<p>FAILURE MODE-SHORT (ELECT). A SHORT IN TELEMETRY MEASUREMENT USOP, LOS TANK HEAD, RESULTED IN AN INTRATIC SUPPLY OF EXCITATION VOLTAGE AND BIAS VOLTAGE TO OTHER MEASUREMENTS.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION. ERRATIC FLUCTUATIONS AND LOSS OF DATA ON PRESSURE MEASUREMENTS AND CALIBRATE SCHEME XTS ON RFE CHANNEL 13 AND OF RATE SYRO BIAS LEVELS ON RFE CHANNEL 1 WERE NOTED THROUGHOUT THE TEST.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-DEVELOPED NEW CIRCUITRY IN THE TELEMETRY ACCESSORY P. CRASE TO PROVIDE SEPARATE SUPPLIES OF EXCITATION VOLTAGE TO USOP, AND OTHER MEASUREMENTS.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER CONNECTOR ERS	FTA 4410/P4-201-00-18 TELEMETRY SET AND TRANSDUCER CONNECTOR ERS	PRF	12B 981124	14	YES NO	
<p>FAILURE MODE-SHORT (ELECT). AN EXCITATION VOLTAGE WIRE WAS SHORTED TO GROUND DUE TO A LOOSE CANNON PLUG.</p> <p>SYSTEM EFFECT-OPERATION STOPS PREMATURELY. TRANS- MISSION OF USABLE DATA FROM RFI CHANNELS 10 AND 13 STOPPED DUE TO LOSS OF EXCITATION VOLTAGE TO THESE CHANNELS.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED. 105 MINUTE HOLD. HOLD WAS LENGTHY DUE TO DIFFICULTY IN SETTING POO DOORS OPEN. AP PROXIMATELY 45 MINUTES WAS DUE TO TELEMETRY.</p> <p>CORRECTIVE ACTION-TIGHTENED CANNON PLUG.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER INSTRUMENTATION CIRCUITRY ERS	ZC-T-207/P1-208-00-9 TELEMETRY SET AND TRANSDUCER INSTRUMENTATION CIRCUITRY ERS	FLIGHT	9B 981117	11 166	YES NO	
<p>FAILURE MODE-SHORT (ELECT). LOSS OF RFE TRANSDUCER POWER SUPPLY PROBABLY AS A RESULT OF A SHORT IN A TRANSDUCER OR INSTRUMENTATION CIRCUITRY.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION. DATA FROM RF 2 WAS LOST.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-AS A RESULT OF THIS AND OTHER TRANSDUCER POWER SUPPLY PROBLEMS, ISOLATION RESISTORS WERE ADDED IN THE INSTRUMENTATION CIRCUITRY TO PREVENT SHORTS IN THE MEASUREMENTS FROM AFFECTING THE POWER SUPPLY.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	DATE TIME	RIE DIP	OTH DIP	PRI DIP	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	2N-7-684/PC-3CO-D18-88	COMPOSITE-FACTORY SC	98	11	YES	NO		987406
FAILURE MODE-OUT OF TOLERANCE. RF NO. 1 CHANNEL E, WAS OUT OF BAND ON LOW FREQUENCY SIDE.								
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. POSSIBLE LOSS OF CHANNEL E DATA.								
VEHICLE EFFECT-COMPOSITE DELAYED OR RESCHEDULED.								
CORRECTIVE ACTION-UNKNOWN.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4323/P1-203-00-8	PRF	98	11	YES	NO		981770
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. RF1 SUBCARRIERS 10 AND 11 COMMUTATORS DID NOT RUN DURING THE TEST.								
SYSTEM EFFECT-OPERATION DOES NOT START. RF1 SUBCARRIERS 10 AND 11 COMMUTATED DATA WAS NOT OBTAINED.								
VEHICLE EFFECT-NONE.								
CORRECTIVE ACTION-UNKNOWN.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	2N-7-648/FC-3CO-D1-04	COMPOSITE-FACTORY 4C	98	11	YES	NO		987837
FAILURE MODE-FAIL DURING OPERATION-MEASUREMENT P580 (SUSTAINER MAIN FUEL VALVE) RF 2, CHANNEL C, SEGMENT 45. INOTICATED 15 PCT 18M, 400 CYCLE OSCILLATIONS DUE TO A FAULTY DEMODULATOR IN THE ACCESSORY PACKAGE.								
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS-FAULTY DEMODULATOR CAUSED IMPROPER VALVE POSITION SIGNALS TO BE TRANSMITTED.								
VEHICLE EFFECT-COMPOSITE RESCHEDULED.								
CORRECTIVE ACTION-THE ACCESSORY PACKAGE WAS REPLACED. SYSTEM AND COMPOSITE RETESTING WAS PERFORMED.								
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4322/P1-203-00-8	PRF	98	11	YES	NO		
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. RF3 DID NOT RESPOND TO THE SWITCH TO INTERNAL POWER SIGNAL AND RF3 WAS RUN ON EXTERNAL POWER DURING THE TEST. APPARENT CAUSE OF THE PROBLEM WAS A RANDOM FAILURE OF THE TELEMETRY POWER SUPPLY WHICH CONTAINS THE MOTOR OPERATED CHANGE OVER SWITCH.								

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-OPERATION DOES NOT START. SYSTEM DID NOT TRANSFER TO INTERNAL. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACE TELEMETRY POWER SUPPLY AFTER TEST.							091004
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS							092656
	FTA425/P4-201-00-0	COUNTDOWN	08 560914	ETR -9000	YES NO		
FAILURE MODE-OUT OF TOLERANCE. RF 4 INTERFERENCE POSSIBLY FROM RF1. 26 MINUTES LATER TELEMETRY GO. SYSTEM EFFECT-CIRCUIT OPERATION. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							091870
	FTA425/P4-201-00-0	COUNTDOWN	08 560911	14 -300	YES NO		
FAILURE MODE-FAIL DURING OPERATION. COMMUTATION LOST ON RF2 CHANNEL A. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. COMMUTATION LOST ON RF2 CHANNEL A. VEHICLE EFFECT-COUNTDOWN DELAYED. 4 MINUTE HOLD, 30 MINUTE RECYCLE. CHANNEL A LOSS CONTRIBUTED TO TEST TERMINATION. CORRECTIVE ACTION-REPLACED RF2 PACKAGE.							093873
	FTA425/P4-201-00-0	PRF	08 560909	14ETR 5	YES YES		
FAILURE MODE-SHORT (ELECT.). TLM MEASUREMENT DTV, RANGE SAFETY COMMAND RECEIVER NO. 1 SIGNAL STRENGTH. INDICATED IN INTERMITTENT OPERATION. THE SIGNAL STRENGTH INDICATED BY THIS MEASUREMENT DROPPED TO ZERO 8 SEC. AFTER ENGINE START. 3 0 SEC. AFTER ENGINE SHUTDOWN MEASUREMENT RETURNED TO PREVIOUS SATISFACTORY LEVEL. SYSTEM EFFECT-ERRATIC OPERATION. TLM MEASUREMENT DTV INDICATED INTERMITTENT OPERATION. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-CORRECTIVE ACTION UNKNOWN.							

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CONVAIN DIVISION

DIFF: CULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ELECTRICAL HARNESS ERS	ZC-7-204/P1-E03-00-03 FLIGHT	58 580828	11 113	YES NO	YES NO	580828
<p>FAILURE MODE-ELECTRICAL SHORT. 180 VOLT DC POWER TO RP1 TRANSDUCERS DROPPED FROM 184 V TO 10 V AT 113 SECONDS AND R EMAINED AT THAT LEVEL UNTIL BOOSTER JETTISON AT WHICH TIME VOLTAGE RETURNED TO 184 VOLT DC. PROBLEM APPARENTLY CAUSED BY SHORT IN WIRING IN BOOSTER SECTION WHICH CLEARED UPON JETTISON OF BOOSTER.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. LOW VOLTAGE SUPPLY TO CHANNELS 1-13 AND 1-4 TRANSDUCERS CAUSED LOSS OF MEASU REMENTS USING THIS VOLTAGE. BETWEEN 130 AND 180 SECONDS THE TRANSDUCER POWER SUPPLY TO SAME CHANNELS FLUCTUATED BETW EEN 80 AND 106 PERCENT POSSIBLY BECAUSE OF SOME DAMAGE DURING SHORT.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CABLESTER ERS	FTA4188/P1-202-00-03 TELEMETRY TLM CABLESTER	59 590820	11/ETR 2-3	YES NO		593303
<p>FAILURE MODE-ERRATIC OPERATION. 81 YAW/ROLL ENGINE POSITION INDICATED A 4.14 DEGREE NEGATIVE SHIFT 3-7 SECONDS AFT ER MAINSTAGE AND A 0.96 DEGREE POSITIVE SHIFT AT ENGINE CUTOFF WHICH WAS NOT SUBSTANTIATED BY LANDLINE DATA. SUBSECU ENT CHECKS OF T E TELEMETRY TRANSDUCER, MECHANICAL COUPLING, AND ELECTRICAL CABLELINE REVEALED NO ABNORMALITIES.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. TELEMETRY INDICATED ENGINE MOTION NOT SUBSTANTIATED BY LANDLINE.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CABLESTER ERS	IM-7-818-1/FC-ECO-03-11 TELEMETRY TLM CABLESTER	COMPOSITE-FACTORY 118 380802	YES NO			803373
<p>FAILURE MODE-ERRATIC OPERATION. THE MASTER PULSE OF RP 1 CHANNEL A INDICATED BREAKUP DURING THE TEST.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION-TLM UNIT TRANSMITTED ERRATIC SIGNALS DURING COMPOSITE.</p> <p>VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE M2-TESTING WAS REQUIRED.</p> <p>CORRECTIVE ACTION-TELEMETRY PACKAGE WAS REPLACED.</p>						

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CONVAIR DIVISION

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE OF TEST	SITE TIME OF TEST	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER-MIRING ERR	FTA4147/P1-208-00-4 TRANSDUCER-MIRING	COUNTDOWN	48 980789	ETR -8400	YES NO		891809
<p>FAILURE MODE-OPEN (ELECT). DURING TELEMETRY TESTING MEASUREMENT P248P DID NOT OPERATE. AFTER TEST IT WAS FOUND THAT THE TRANSDUCER CIRCUIT WAS OPEN DUE TO NO GROUND.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED. TOTAL DELAY WAS 174 MINUTES DUE TO THIS PROBLEM.</p> <p>CORRECTIVE ACTION-TRANSDUCER WAS REPLACED AND OPERATION WAS STILL UNSATISFACTORY. FURTHER INVESTIGATION REVEALED AN OPEN CIRCUIT DUE TO NO GROUND. A GROUND WAS SUPPLIED AND THE TRANSDUCER OPERATED SATISFACTORILY.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER COMPUTATOR ERR	FTA4101/P1-208-00-3 TRANSDUCER COMPUTATOR	COUNTDOWN	38 980719	11 -480	YES NO		897641
<p>FAILURE MODE-FAIL DURING OPERATION. CHANNEL E ON RFE STOPPED COMMUTATING.</p> <p>SYSTEM EFFECT-OPERATION STOPS PREMATURELY. COMMUTATION ON CHANNEL E RFE STOPPED PRIOR TO FLIGHT.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED. 4 MINUTE HOLD.</p> <p>CORRECTIVE ACTION-LAUNCH WITHOUT RFE CHANNEL E.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER COMPUTATOR-CHANNEL E ON RFE ERR	ZC-7-200/P1-208-00-3 TRANSDUCER COMPUTATOR-CHANNEL E ON RFE	FLIGHT	38 980719	11 -25-200	YES NO		896649
<p>FAILURE MODE-FAIL DURING OPERATION. THE COMPUTATOR FOR CHANNEL E ON RFE FAILED AT T-7 HOURS DURING THE COUNTDOWN. THE COMPUTATOR WAS APPARENTLY STUCK ON A NEGATIVE PEDESTAL.</p> <p>SYSTEM EFFECT-OPERATION TOO LOW. THE DECISION WAS MADE TO LAUNCH WITH CHANNEL E ON RFE INOPERATIVE. AS A RESULT THERE WERE NO DATA FROM THIRTEEN MEASUREMENTS ON CHANNEL E DURING THE FLIGHT.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-NONE.</p>							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCER COMPUTATOR ERR	FTA4017/P1-208-00-3 TRANSDUCER COMPUTATOR	FLIGHT	38 980827	11/ETR -8400	YES NO		
<p>FAILURE MODE-ERRATIC OPERATION. RFE CH 18, A, C, AND E SHOWED A VARYING SPEED DURING THIS TEST.</p>							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							093343
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B EK-1024/TEST 14-302-A2							093023
TELEMETRY SET AND TRANSDUC TRANSDUCER B1 INLET TEMP							
ERR							
FAILURE MODE-ELECTRICAL OPEN. BOOSTER/SUSTAINER OPERATION TEST SCHEDULE FOR 40 SECONDS WAS TERMINATED AT 14 SECONDS AS B1 TURBINE INLET TEMPERATURE INDICATED VALUE IN EXCESS OF 1400 DEGREES F REDLINE FOR THIS PARAMETER. POST INSPEC TIC REVEALED THAT TRANSDUCER FOR THIS MEASUREMENT HAD OPENED.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-PREATURE PROPULSION CUTOFF. PLANNED RUN DURATION WAS 40 SECONDS. ACTUAL WAS 14.78 SECONDS.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B FT2886/PE-102-00-16							093309
TELEMETRY SET AND TRANSDUC TLM CANISTER							
ERR							
FAILURE MODE-ERRATIC OPERATION. THE 100 PCT CALIBRATE PULSE ON RF NO.3 CHANNEL 12 WAS CHANGING AMPLITUDE.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. THE FLUCTUATING CALIBRATE PULSE MADE AUTOMATIC DECOMMUTATION IMPOSSIBLE.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B FT2886/PE-101-00-16							093330
TELEMETRY SET AND TRANSDUC TLM CANISTER							
ERR							
FAILURE MODE-FAIL DURING OPERATION. LOST CHANNEL C ON BOTH RF NO. 1 AND RF NO.2. ALSO LOST NEGATIVE VOLTAGE SUPPLY TO CHANNEL C ON RF NO.2.							
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. LOST CHANNEL C ON BOTH RF NO.1 AND RF NO.2. ALSO LOST NEGATIVE VOLTAGE 8 APPLY TO CHANNEL C ON RF NO.2.							
VEHICLE EFFECT-COUNTDOWN DELAYED. 90 MINUTES HOLD.							
CORRECTIVE ACTION-CHANGED RF NO.1 AND NO.2. ALSO CHANGED RF NO.2 TRANSDUCER POWER SUPPLY.							

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CONVAIR DIVISION

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CALIBRATION-RF NO.1 ERS	FTA2829/P2-101-00-18 FTA2829/P2-101-00-18	FRP	10A 800418	12/ETR	YES NO		8923289
FAILURE MODE-FAIL DURING OPERATION. RF1 CHANNEL 12 LOST CALIBRATE PULSES YIELDING NO QUANTITATIVE DATA. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	FTA2829/P2-101-01-18 FTA2829/P2-101-01-18	COMPOSITE-B FACT	10A 800404	12	YES NO		891053
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. RF3 CHANNELS 10 AND 11 COMMUTATORS WERE RUNNING AT HALF SPEED. SYSTEM EFFECT-OPERATION TOO LOW. AUTOMATIC DECOMMUTATION NOT POSSIBLE DUE TO SLOW SPEED. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACE CANISTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CHANGE OVER SWITCH ERS	FTA2798/P4-104-00-19 FTA2798/P4-104-00-19	COMUTOMM	15A 800388	14 -10320	YES NO		897474
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. APPARENTLY A FAULTY INTERNAL-EXTERNAL SWITCH FOR THE NO 1 TRANSDUCER POWER SUPPLY FAILED TO BREAK CONTACT WHEN SWITCHOVER WAS INITIATED. SYSTEM EFFECT-OPERATION DOES NOT START. TELEMETRY NO 1 TRANSDUCER POWER SUPPLY FAILED TO TRANSFER TO EXTERNAL UPON COMMAND. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-PERFORMED TWO ADDITIONAL SWITCHOVERS WHICH WERE SUCCESSFUL. DECISION MADE TO PROCEED WITH TEST AND NOT CHANGE THE POWER SUPPLY PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CANISTER ERS	FTA 2710/P4-103-00-19 FTA 2710/P4-103-00-19	FRP	15A 800388	14 -10300	YES NO		
FAILURE MODE-FAIL DURING OPERATION. THE NEGATIVE PEDESTAL ON RF3 CHANNEL-A WAS LOST. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA SIGNALS FROM RF3 CHANNEL-A WERE NOT USABLE DUE TO LOSS OF NEGATIVE PEDE							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
STAL.						
VEHICLE EFFECT-COUNTDOWN DELAYED. 80 MINUTE HOLD.						
CORRECTIVE ACTION-REPLACED RFR PACKAGE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POKER SUPPLY, TELEMETRY RFR ERS	FT42741/P4-1CO-01-13	COMPOSITE-B FACT	15A 980310	14	YES NO	
FAILURE MODE-FAIL DURING OPERATION. THE TRANSDUCER EXCITATION VOLTAGE FOR RFR CHANNEL A WAS LOST.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. ALL MEASUREMENTS ON RFR CHANNEL A FAILED TO PROVIDE DATA.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-REPLACE RF CANISTER.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FT42845/P2-102-00-11	COUNTDOWN	11A 580225	ETR-12 -540	YES NO	
FAILURE MODE-FAIL DURING OPERATION. RF NO. 4 LOST MODULATION.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. LOSS OF MODULATION WOULD HAVE CAUSED LOSS OF DATA.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE. WENT WITHOUT MODULATION ON RF 4. REPORT INDICATED THAT DATA FROM RF 4 WAS QUANTITATIVE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FT42845/P2-102-00-13	COUNTDOWN	13A 580207	ETR-12 -13300	YES NO	
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. RFR CHANNEL 1 INOPERATIVE.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COUNTDOWN DELAYED.						
CORRECTIVE ACTION-UNKNOWN.						

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CONVAIR DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DATA SOURCE	VEHICLE DATE	SITE TIME	PRI	VENDOR NAME
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE	DIF	OTH	VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC HARNESS-VERNIER TRANSDUCER TO RF 1 ERS	FTAB239/P2-105-00-10 COUNTDOWN	10A 900107	ETR-12 -16000	YES NO		
<p>FAILURE MODE-OPEN (ELECT). THE VERNIER THRUST CHAMBER PRESSURE MEASUREMENT WAS NOT WORKING DURING TELEMETRY TEST. 1 INVESTIGATION REVEALED THE PROBLEM EXISTED IN THE HARNESS.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. LOSS OF VERNIER THRUST CHAMBER PRESSURE DATA.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED. 3 HOUR AND 8 MINUTE HOLD.</p> <p>CORRECTIVE ACTION-REPAIRED A BROKEN TRANSDUCER WIRE BUT PROBLEM PERSISTED. REPLACED RF 1 PACKAGE BUT PROBLEM PERSISTED. A NEW HARNESS WAS INSTALLED FROM THE TRANSDUCER TO RF 1 WHICH SATISFACTORILY RESOLVED THE PROBLEM.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FTAB239/P2-103-00-10 FRF	10A 971210	12/ETR NO	YES NO		
<p>FAILURE MODE-OUT OF TOLERANCE. DISPLACEMENT AND RATE GYRO SIGNALS MONITORED ON RF NO 1. CHANNELS 10 AND 11. EXPERIENCED INTERFERENCE FROM VIBRATION MEASUREMENTS MONITORED ON CHANNEL 5. RF NO 3 FAILED. CHANNELS 13 OF RF NO 1 WAS EXCESSIVELY NOISY AND CALIBRATION SEGMENTS ON CHANNEL 10 OF RF NO 2 WERE MISSING.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER SUPPLIES ERS	FTAB239/P2-103-10-10 FRF	10A 971210	12/ETR NO	YES NO		
<p>FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER POWER SUPPLIES AFFECTING CHANNELS 12, 13, AND 14 ON RF NO. 2 WERE VERY LOW AND VARYING THROUGHOUT TEST.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FTAB239/P2-105-00-10 FRF	10A 971127	12/ETR NO	YES NO		
<p>FAILURE MODE-OUT OF TOLERANCE. THE CALIBRATE SEGMENTS ON CHANNEL 10, RF NO 2, WERE LOST AND RF NO 3 FAILED COMPLETE</p>						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
LY AT ENGINE SHUTDOWN.							893318
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMBINATOR-RF1 CHANNEL 12 CRS	FT4282/P2-1CO-01-10	COMPOSITE-B FACT	10A 12 571114	12	YES NO		891048
FAILURE MODE-OUT OF TOLERANCE. RF1 CHANNEL 12 EXHIBITED NOISY CHARACTERISTICS. APPARENT CAUSE WAS THE COMMUTATOR.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-COMMUTATOR WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC BRIDGE CIRCUIT CRS	FT4282/P2-1CO-01-10	COMPOSITE-B FACT	10A 12 571114	12	YES NO		891048
FAILURE MODE-FAIL DURING OPERATION. RF3 CHANNEL 10 EXHIBITED NO COMMUTATION CHARACTERISTICS DUE TO FAULTY TEMPERATURE BRIDGE CIRCUIT.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM RF3 CHANNEL 10 WAS NOT OBTAINED DUE TO LOSS OF COMMUTATION.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-RF3 CHANNEL 10 TEMPERATURE BRIDGE CIRCUIT REPAIRED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER-RF2 CHANNEL A. CRS	FT4282/P2-1CO-01-10	COMPOSITE-B FACT	10A 12 571114	12	YES NO		891047
FAILURE MODE-OUT OF TOLERANCE. RF2 CHANNEL A WAS SUFFICIENTLY OFF CENTER FREQUENCY TO CAUSE CROSS MODULATION ON SYNC AND CALIBRATE PULSES.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-RETUNED SUBCARRIER.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
800-SYSTEM						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	EN-887/1-A, 111-08-02	CAPTIVE	2A 570887	1-A	NO NO	
FAILURE MODE-FAIL DURING OPERATION. THE THREE R.F. SYSTEMS WERE NOISY DUE TO PICK-UP WHEN G2 EQUIPMENT TURNED ON.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	EN-314/111-07-03	CAPTIVE	3A 570620	8-1	YES NO	
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. THE QUALITY OF DATA WAS POOR. SOME DATA WERE LOST DUE TO FAILURE AND EXCESSIVE NOISE.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ZC-7-084-4A/P4- 01-00-04	COUNTDOWN	4A 570607	14	YES NO	
FAILURE MODE-FAIL DURING OPERATION. DIFFICULTY WAS EXPERIENCED AT T-260 MINUTES WITH THE NO.2 TELEMETER.						
SYSTEM EFFECT-UNKNOWN.						
VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED. COUNTDOWN WAS ABORTED AT T-260 MINUTES AND RESCHEDULED.						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PTA1781/P4-102-00-04	FRF	4A 570803	14/ETR	YES NO	
FAILURE MODE-OUT OF TOLERANCE. THE 100 PCT CALIBRATE PULSE ON CHANNEL 13, RF NO.1, WAS OUT OF BAND.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC HARNESS-NUT ERS	EN-433/108-D-4 EN-433/108-D-4	CAPTIVE	3A 870527	51 87	YES NO	
<p>FAILURE MODE-ERRATIC OPERATION. SEVERAL MEASUREMENTS BECAME ERRATIC. THE B-NUT ATTACHMENT FOR THE INSTRUMENTATION LINE FROM THESE FUEL INJECTION MANIFOLD TO THE TRANSDUCER WAS BACKED OFF AT THE ATTACHMENT TO THE MANIFOLD. THIS ALLOWED FUEL TO BE SPRAYED INTO THE ENGINE COMPARTMENT.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. SEVERAL TRACES BECAME ERRATIC BEFORE THE END OF THE TEST DUE TO WIRING DAMAGE.</p> <p>VEHICLE EFFECT-FIRE. A FIRE WAS STARTED IN THE B2 ENGINE COMPARTMENT. PRINCIPLE DAMAGE WAS TO WIRING IN THE B2 COMPARTMENT. A FUEL VALVE CONTROL LINE BURNED THROUGH CAUSING A DECAY IN FUEL FLOW AND AN INCREASE IN THE MIXTURE RATIO.</p>						
CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANNISTER ERS	EN-4068-1-107-3 EN-4068-1-107-3	CAPTIVE	3A 870527	51 87	YES NO	
FAILURE MODE-OUT OF TOLERANCE. SYSTEM EFFECT-ERRATIC OPERATION. EXTREME NOISE WAS PRESENT ON ALL SATING LEVELS OF CHANNEL E, RF1 AND RF2. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	FT15750/P1-1CO-01-04 FT15750/P1-1CO-01-04	COMPOS: E-B FACT	4A 870510	14/ETR	YES NO	
FAILURE MODE-OUT OF TOLERANCE. RF 1 CHANNEL E HAD NO COMMUTATION THROUGHOUT TEST. SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACE RF 1 CANNISTER.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR ERR	FT1780/P4-110-01-04 SUBCARRIER OSCILLATOR	COMPOSITE-B FACT	4A 570810	14/ETR	YES NO	
<p>FAILURE MODE-OUT OF TOLERANCE. THE SUBCARRIER OSCILLATORS FOR CHANNELS 10 AND 11 ON RF 2 AND CHANNEL 10 ON RF 3 WERE OPERATING OUTSIDE THE FREQUENCY BAND LIMITS. ALSO CALIBRATION PULSES WERE NOISY AND ERRATIC.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DECOMMUTATION NOT POSSIBLE.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-REPLACED CAPACITORS.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSMITTER ERR	EM-384/104-1 TRANSMITTER	CAPTIVE	2A 570821	9-1	YES NO	
<p>FAILURE MODE-OUT OF TOLERANCE.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION. NOISE WAS PRESENT ON RF 3, CHANNELS 10, 11, 13, A, C AND E. HIGH NOISE ON SYNC PULSE, COMMUTATOR SEGMENTS BARELY DISTINGUISHABLE, CHANNELS A, C AND E WERE OUT OF BAND AND EXHIBITED INTERMODULATION.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-UNKNOWN</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC POWER CHANGE/OVER SWITCH ERR	SP-99-24-3330F POWER CHANGE/OVER SWITCH	FAR	144D 63	FACTORY	YES KINETICS NO M-177-4	
<p>FAILURE MODE-UNIT OPERATED ERRATICALLY. FAILURE ANALYSIS REVEALED A HARD SPOT ON ONE OF THE BRUSHES OF THE MOTOR.</p> <p>CORRECTIVE ACTION-NO CORRECTIVE ACTION WAS TAKEN BUT THE VENDOR STATED THAT A BRUSH CHANGE WAS INITIATED IN 1959 AM D ALL UNITS MANUFACTURED SINCE THEN HAVE BRUSHES WITH HIGHER SILVER CONTENT.</p>						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERR	ZH-T-849/FC-350-01-04 TLM CANISTER	COMPOSITE-FACTORY 4C			YES BENDIX NO	
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. MEASUREMENT DISK (RSC NO. 1 DESTRUCT) DID NOT DEFLECT AND 40-CYCLE, 8 PCT. ISW NOISE WAS EVIDENT. CAUSE IS UNKNOWN, BUT THE PROBLEM WAS ISOLATED TO THE ACCESSORY PACKAGE.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. MEASUREMENT DID NOT INDICATE ACTUATION AND WAS NOISY.</p>						

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-COMPOSITE RESCHEDULED.						
CORRECTIVE ACTION-THE ACCESSORY CANISTER WAS REPLACED. SYSTEM AND COMPOSITE RETESTING WAS REQUIRED.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LM8D-448982-B/PA-4CO-02-48	COMPOSITE-J FACT	48D	14	YES NO	
FAILURE MODE-ERRATIC OPERATION. SHIFTS IN DATA LEVEL WERE NOTED ON SEVERAL TELEMETRY CHANNELS. EXACT CAUSE NOT KNOWN BUT ATTRIBUTED TO INTERFERENCE LEVELS PRESENT ON SIGNAL GROUND CIRCUITS.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-FLUCTUATIONS MINIMIZED BY ADDITION OF A STRUCTURE GROUND.						
INSTRUMENTATION-A/B ANTENNA AND COUPLER	GOC/BKFB3-061/81-401-00-123 RING COUPLER COAX CABLE	FLIGHT	125D	WTR-B-1	YES YES	
FAILURE MODE-ERRATIC OPERATION. POSSIBLE ADP RF CABLING PROBLEM OR A LOOSE COAX CABLE TO THE RING COUPLER CAUSED ADP MOD 1V SIGNAL STRENGTH TO DROP BELOW DATA RECOVERY LEVEL. POSSIBLE PROBLEM COULD BE IN THE ADP TRANSMITTER OR CABLE WHICH WOULD PLACE PROBLEM RESPONSIBILITY ON AERONAUTONICS.						
SYSTEM EFFECT-OPERATION TOO LOW. SIGNAL STRENGTH TOO LOW TO RECORD DATA BETWEEN COUNTDOWN AND PLUS 22 SECONDS AND A FIFTEEN PLUS 122 SECONDS ANOTHER DROP IN SIGNAL STRENGTH CAUSED DATA LOSS FOR THE REMAINDER OF THE FLIGHT.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-SPECIAL CHECKS OF INSTRUMENTATION WERE INCORPORATED AT EARLIER POINT IN COUNTDOWN SUCH THAT CORRECTIVE ACTION COULD BE TAKEN IF PROBLEMS SHOULD OCCUR.						
INSTRUMENTATION-A/B ANTENNA AND COUPLER	GOC/BKFB3-054/L4-701-00-7111 ANTENNA	FLIGHT	7111	WTR-S-4	YES NO	
FAILURE MODE-OUT OF TOLERANCE. DROPOUT OF DATA IN THE VICINITY OF PAYLOAD SEPARATION DUE TO LOOK ANGLE WHICH OCCURRED AT THIS TIME WHEN THE VEHICLE REACHES AN ALTITUDE WHERE THE VEHICLE ANTENNA PATTERN LOOK-ANGLE CLOSELY APPROXIMATES ONE OF THE NULLS IN THE PATTERN OF THE ANTENNA ARRAY.						
SYSTEM EFFECT-ERRATIC OPERATION. DROPOUT OF DATA FROM 293.61 TO 299.13 SECONDS AS RECORDED BY THE WTR TRACKING STATION. DATA HOWEVER WAS RECOVERED DURING THIS PERIOD BY THE BACK-UP SYSTEM WITH THE EXCEPTION OF A 0.2 SECOND DROP OUT BETWEEN 297.3 AND 297.5.						
VEHICLE EFFECT-NONE. HOWEVER SINCE THE DROP-OUT IS IN THE VICINITY OF PAYLOAD SEPARATION THIS CONDITION COULD EFFECT THE EVALUATION OF SEPARATION IF THE DROP-OUT OCCURS THEN.						
CORRECTIVE ACTION-1) TRACK AND RECORD DATA FOR PALS FLIGHTS FROM THE KEARNY NEBA PLANT, SAN DIEGO. 2) STUDY THE TRA						

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S-ITEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
TRANSMITTER RADIATION PATTERN-ECP 3484.							000040
INSTRUMENTATION-A/B ANTENNA AND COUPLER	0003071-1 ANTENNA	UTP-PRT 87-12507-5	041209	GD/C	YES NO	GD/C NO 87-12507-5	001037
FAILURE MODE-OUT OF TOLERANCE. DURING EXAMINATION OF THE ANTENNA ASSEMBLY, A DIMENSIONAL OUT-OF-TOLERANCE WAS MEASURED. INVESTIGATION REVEALED THAT THIS PARTICULAR DIMENSION IS A FUNCTION OF THE POD CONTOUR AND AN EXACT DIMENSION CANNOT BE DETERMINED.							
CORRECTIVE ACTION-THE SPEC CONTROL DRAWING WAS REVISED TO ALLOW FOR THIS PROBLEM.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	8LV-A8-24-4908-F ANTENNA ASSEMBLY-WIRING	FAR 87-12507-801	7109 041104	FACTORY	YES NO	CREATIVE ENGIN NO EERING	003440
FAILURE MODE-OUT OF TOLERANCE. THE TELEMETRY VSWR WAS OUT OF TOLERANCE. THIS WAS DUE TO PROBE MISALIGNMENT, POOR SOLDER CONNECTIONS, AND A CRACK IN THE CONNECTOR SHELL.							
CORRECTIVE ACTION-ALL ASSEMBLIES IN STOCK RETURNED FOR RETEST.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	60A/BKFS4-042/L4-T01-00-7108 RING COUPLER CONNECTOR	FLIGHT	7102 040923	WTR-E-4 52	YES YES		000035
FAILURE MODE-FAIL DURING OPERATION. POSSIBLY CONNECTOR PROBE IN RING COUPLER LOOSENED UNDER VIBRATIONAL STIMULUS.							
SYSTEM EFFECT-ERRATIC OPERATION. LOOSENING OF CONNECTOR PROBE CAUSED BY NO. 1 SIGNAL STRENGTH FLUCTUATIONS (APPROXIMATELY 12 DB PEAK-TO-PEAK).							
VEHICLE EFFECT-NONE. DATA RETRIEVAL VIA RF NO. 1 NOT AFFECTED. IT SHOULD BE NOTED THAT RANGE SAFETY COMMAND SYSTEM (RSC) USES RING COUPLER OF IDENTICAL DESIGN, EXCEPT THAT RSC UNIT IS SMALLER. THEREFORE, THE RSC UNIT COULD HAVE THE SAME PROBLEMS AS THE TELEMETRY SYSTEM RING COUPLER.							
CORRECTIVE ACTION-AS A RESULT OF RING COUPLER PROBLEMS DURING STRESS LIMIT TESTING OF UTP, REQUEST FOR DESIGN IMPROVEMENT OF RING COUPLER WAS SUBMITTED TO CUSTOMER. THE DESIGN IMPROVEMENT WILL LESSEN POSSIBILITY OF LOOSE CONNECTOR PROBE WITHIN RING COUPLER. REQUEST WAS NOT APPROVED. CLOSER ADHERENCE TO CONNECTOR INSTALLATION DRAWING RE-EMPHASIZE D TO SC AND INSPECTION.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	FTAB471/P3-4CO-02-216 ANTENNA	COMPOSITE-B FACT	2160 040708	ETR-13	NO NO		
FAILURE MODE-ERRATIC OPERATION. VARIATIONS IN TELEMETRY SIGNAL STRENGTH WERE OBSERVED AT HANSAAR J GROUND STATION. SIGNAL INTERFERENCE WAS BEING CAUSED BY SERVICE TOWER DECK CONFIGURATION.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
<p>SYSTEM EFFECT-ERRATIC OPERATION. SIGNAL STRENGTH LEVELS PRIOR TO AND THROUGHOUT THE TEST, AS OBSERVED AT THE HANGAR J GROUND STATION VARIED FROM 2.8 R MICROVOLTS TO NOISE. DATA WAS LOST DURING THE PERIODS OF EXTREMELY LOW SIGNAL BY LENGTH. SIMILAR OCCURRENCES WERE NOTED ON TEST P8-490-03-816, A J FACT.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-FOR MAJOR TESTS PERFORMED WITH TOWER AROUND THE VEHICLE, THE SERVICE TOWER DECKS IN PROXIMITY TO TLM ANTENNA WERE STORED IN RETRACTED POSITION.</p>						
INSTRUMENTATION-A/B ANTENNA AND COUPLER	69A2144.1 RING COUPLER CIRCUIT BOARD	UTP-BLT 69-11210-3	640586	60/C	YES 60/C NO	
<p>FAILURE MODE-OPEN (ELECT). THE OUTPUT OF JB WAS LOW AND VSWR AT J1 WAS OUT OF TOLERANCE INDICATING INTERMITTENT OPEN DURING X-AXIS BLT RANDOM/SINE VIBRATION-TEMPERATURE-ALTITUDE TEST. (BLT LEVEL VIBRATION, TEMPERATURE MINUS 40 DEG REES F, ALTITUDE 1 MM HG). EXAMINATION REVEALED THAT THE SOLDER JOINT BETWEEN THE CIRCUIT BOARD RIBBON AND THE EYELET WAS CRACKED.</p> <p>CORRECTIVE ACTION-NONE. THE UNIT IS A QUALIFIED PART HAVING SUCCESSFULLY COMPLETED THE PAT/PRT REQUIREMENTS OF THE UNIFIED TEST PLAN. THIS FAILURE OCCURRED DURING BLT, THE LEVELS OF WHICH ARE BEYOND THE DESIGN SPECIFICATION REQUIREMENTS. REF. FRR 296.</p>						
INSTRUMENTATION-A/B ANTENNA AND COUPLER	69A2144.1 RING COUPLER	UTP-PAT 69-11210-3	640519	60/C	YES 60/C NO	
<p>FAILURE MODE-OUT OF TOLERANCE. DURING EXAMINATION OF THE PRODUCT THE DIMENSIONS FOR THE SCREW HOLES WHICH ARE USED TO ASSEMBLE THE COVER TO THE HOUSING WERE OUT OF TOLERANCE.</p> <p>CORRECTIVE ACTION-NONE. THESE DIMENSIONAL OUT OF TOLERANCES ARE MINOR AND HAVE NO EFFECT ON THE OPERATION OF THE UNIT. FURTHERMORE, THERE IS DOUBT THAT THESE MEASUREMENTS CAN BE READ ACCURATELY SINCE THESE MEASUREMENTS ARE MADE OVER THE SCREWS, WASHERS, AND LOCKWIRE. REF. FRR 322.</p>						
INSTRUMENTATION-A/B ANTENNA AND COUPLER	69A2144.1 RING COUPLER CIRCUIT BOARD	UTP-PRT 69-11210-3	640506	60/C	YES 60/C NO	
<p>FAILURE MODE-OPEN (ELECT). THE OUTPUT POWER DROPPED AND THE REFLECTED POWER INCREASED INDICATING INTERMITTENT OPEN DURING THE X-AXIS RANDOM/SINE VIBRATION-TEMPERATURE-ALTITUDE TEST. (PRT LEVEL VIBRATION, TEMPERATURE MINUS 25 DEG REES F, ALTITUDE 1 MM HG). EXAMINATION REVEALED THAT THE SOLDER JOINT BETWEEN THE CIRCUIT BOARD RIBBON AND THE EYELET WAS CRACKED.</p> <p>CORRECTIVE ACTION-ECP TYPES CREATED THE DASH-3 CONFIGURATION WHICH CHANGED THE EYELET TO ONE THAT IS SWAGED TO 60 DE</p>						

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AIRBORNE INSTRUMENTATION REVIEW DIFFICULTIES

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-PROCEDURE CHANGED TO INSURE COUPLER TUNING.						
INSTRUMENTATION-A/B ANTENNA AND COUPLER	69A2144 RING COUPLER	UTP-QUAL/PPT 69-11810-1	631230	60/C	YES	60/C NO
FAILURE MODE-OUT OF TOLERANCE, DURING THE ENI TEST THE UNIT EXCEEDED BY 100S THE RADIATED POWER INTERFERENCE LIMIT OF 32 DB ABOVE 1 MICROVOLT AT 850MC.						
CORRECTIVE ACTION-SPECIFICATION DEVIATION TODD-65 WAS APPROVED TO ALLOW FOR THE ENI OUT OF TOLERANCE.						
INSTRUMENTATION-A/B ANTENNA AND COUPLER	69A2144 RING COUPLER CIRCUIT BOARD	UTP-QUAL/PPT 69-11810-1	631185	60/C	YES	60/C NO
FAILURE MODE-OPEN (ELECT), FOLLOWING THE SHOCK TEST, CONNECTOR J2 DEVELOPED AN INTERMITTENT OPEN. THE CAUSE OF THE MALFUNCTION WAS A COLD SOLDER JOINT BETWEEN THE CONNECTOR AND THE CIRCUIT BOARD EYELET. INVESTIGATION REVEALED THAT AN IMPROPER PLANNING CARD WAS ISSUED, RESULTING IN A WRONG SOLDERING SPECIFICATION MPS APPLICATION.						
CORRECTIVE ACTION-ALL PARTS FABRICATED TO DATE WERE IRD FOR SURVEY, THOSE THAT DID NOT PASS THE SURVEY INSTRUCTIONS WERE RE-WORKED TO MPS 44.01-14. ACTION WAS ALSO INITIATED TO HAVE ALL UNITS SUBJECTED TO ACCEPTANCE VIBRATION TESTING INCLUDING THE 69-38012-1 RING COUPLER. REF. PIR 079.						
INSTRUMENTATION-A/B ANTENNA AND COUPLER	60A83-1092/P1-602-00-136 ANTENNA	FLIGHT	136F 631022	ETR-11		
TELEMETRY SET AND TRANSDUCERS						
FAILURE MODE-ERRATIC OPERATION. DATA WAS LOST ON RF 1, RF 2 AND RF 3 DURING THE PERIOD OF MAXIMUM DYNAMIC PRESSURE THIS WAS CAUSED BY LOSS OF TRANSMITTER MODULATION CAUSED IN TURN BY FAILURE OF RESONANCING ON THE P00 DOORS.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-NONE.						
CONNECTIVE ACTION-UNKNOWN.						
INSTRUMENTATION-A/B ANTENNA AND COUPLER	LV-99-14-209-F COAXIAL ASSEMBLY	FAR 69-64900-020	631009	FACTORY	YES	60/C NO
FAILURE MODE-OUT OF TOLERANCE WITH RESPECT TO INSERTION LOSS. MEASURED 0.680S AS OPPOSED TO REQUIRED 0.600S. THIS CABLE WAS DESIGNED FOR AC-3 ONLY. POSITION OF TAIL PIPE ANTENNA WAS CHANGED ON AC-3 AND ON.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME OIF	SITE	PRI OTM	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE-THIS CABLE NO LONGER USED.							003300
INSTRUMENTATION-A/B ANTENNA AND COUPLER	094034 ANTENNA	UTP-PRT 87-12307-1	030009	GD/C	YES NO	CREATIVE EN686 87-12307-1	001740
FAILURE MODE-OUT OF TOLERANCE. DURING EXAMINATION OF THE ANTENNA ASSEMBLY, THE SEALING AROUND THE CAVITY FEED WAS FOUND PEELING AWAY. THE IDENTIFICATION NUMBERS WERE PRINTED ON TOP OF ONE ANOTHER. THE PAPER PACKING MATERIAL WAS IMBEDDED IN THE COATING ON THE UNDER SIDE OF THE ANTENNA. THE UNDERSIDE OF THE MOUNTING FLANGE SHOWED EFFECTS OF MOISTURE AND ONE DIMENSION WAS OUT OF TOLERANCE.							
CORRECTIVE ACTION-RC INFORMED OF THE POOR WORKMANSHIP AND ADVISED TO EXERCISE CLOSER SURVEILLANCE AT VENDOR FACILITY. THE DIMENSIONAL OUT OF TOLERANCE WAS NOT CONSIDERED CRITICAL. PRT TESTING CONTINUED. (REF. FR0019).							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	SP-A9-24-4032-F ANTENNA-CONNECTOR	FAR 01-03900-002	030710	FACTORY	YES NO	MICROLAB	003221
FAILURE MODE-CONTAMINATION. THE ANTENNA POWER DIVIDER FAILED WHEN THE INSERTION LOSS FROM ONE SIDE OF THE POWER DIVIDER WAS OUT OF SPECIFICATIONS HIGH. FAILURE WAS NOT CONFIRMED. HOWEVER, FOREIGN PARTICLES FOUND INSIDE THE CONNECTORS OF THE POWER DIVIDER COULD HAVE CAUSED THE FAILURE IF ANY OF LARGER SIZE HAD BEEN PRESENT AT TIME OF FAILURE.							
CORRECTIVE ACTION-PERSONNEL RESPONSIBLE FOR INSPECTION OF THE POWER DIVIDER WERE NOTIFIED OF THE CONTAMINANT POSSIBILITY AND WERE REQUESTED TO BE ON THE ALERT FOR CONTAMINANTS.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	A09-24-3539F RING COUPLER CONNECTOR	COMPOSITE-FACTORY 45F 030603 7-11500-6	FACTORY	YES NO			007700
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED IN THE FACTORY WHEN THE MEASURED DB LOSS WAS 7.3 DB. 0.0 DB IS THE MAX. ALLOWED. FAILURE COULD NOT BE CONFIRMED. THE HIGHEST READING OBTAINED IN 5 TESTS WAS 3.3 DB. THE CONDITION WAS DUPLICATED BY LOOSENING ONE OF THE RF CONNECTORS SLIGHTLY. IT WAS ASSUMED THAT THIS WAS THE POSSIBLE REASON FOR FAILURE.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-COMPOSITE DELAYED.							
CORRECTIVE ACTION-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B ANTENNA AND COUPLER	N2-99-24-3812-F STUB TUNER	FAR 87-81349-3	2000 030205	FACTORY	YES NO		003091
FAILURE MODE-FAIL DURING OPERATION. DURING CHECKOUT A 10 DECIBEL LOSS WAS DETECTED WHEN 6.5 DECIBELS WAS EXPECTED.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	JP-90-24-3160F POWER DIVIDER	FAR 81-85900-008	131-D 621204	WTR	NO NO	MICROLAS 093500H	098084
FAILURE MODE-OUT OF SPECIFICATION IN POWER OUTPUT. DISCREPANCY ATTRIBUTED TO A MALFUNCTION OF ASSOCIATED EQUIPMENT IN TELEMETRY SYSTEM.							
CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	A-98-24-3196F DIPLEX COUPLER	FAR 7-11678-805	621011	ETR	YES YES	GD/C	096107
FAILURE MODE-SHORT (ELECTRICAL). THE DIPLEXER SHORT REPORTEDLY CAUSED DAMAGE TO A TRANSMITTER. THE DIPLEXER WAS EXAMINED AND NO ABNORMAL CONDITIONS WERE FOUND. ALL TEST RESULTS WERE WITHIN SPECIFICATION. THE REPORTED FAILURE WAS NOT CONFIRMED. DAMAGE TO TRANSMITTER COULD HAVE BEEN CAUSED BY A POOR CONNECTION BETWEEN TRANSMITTER AND DIPLEXER.							
CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN SINCE THE FAILURE WAS NOT CONFIRMED AND OTHER SYSTEM COMPONENTS WERE IN OF AVAILABLE FOR TESTING.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	AE82-0078/01-504-00-88 ANTENNA	FLIGHT	88E 620228	WTR 110	YES NO		097884
FAILURE MODE-FAIL DURING OPERATION. THE TELEMETRY SYSTEM SIGNAL WAS INTERRUPTED BETWEEN 110 AND 188 SECONDS PROBABLY CAUSED BY ATMOSPHERIC IONIZATION OF THE ANTENNA DUE TO INSUFFICIENT ANTENNA BONDING.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NONE, SECONDARY FAILURE.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER - FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B ANTENNA AND COUPLER	4481-0148/P1802-00-88 ANTENNA-TRANSMITTER	COUNTDOWN	83E 810923	ETR-15 -300.	YES NO		083001
<p>FAILURE MODE-CONTAMINATION. DURING SECOND LAUNCH ATTEMPT, RFS TELEMETRY INDICATED EXCESSIVE NOISE LEVEL. EXACT CAUSE OF NOISE UNKNOWN. POSSIBLE CAUSE WAS POOR RF BONDING DUE TO PAINT ON BONDING STRIPS. BONDING WAS CLEANED.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED. LOX WAS DETANKED AND RFS TELEMETRY PACKAGE REPLACED. COUNT WAS RECYCLED TO T-4200 SECONDS.</p> <p>CORRECTIVE ACTION-RFS TELEMETRY PACKAGE REPLACED. REPLACEMENT ITEM SUBSEQUENTLY ALSO FAILED AND COUNTDOWN WAS ABORTED SINCE NO FURTHER SPARES AVAILABLE. BONDING POINTS CLEANED.</p>							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	99-24-121 RING COUPLER-WIRING	FAR 7-11300-3	18E 810314	ETR-13	YES NO		084012
<p>FAILURE MODE-OUT OF TOLERANCE. FAILURE WAS DUE TO HIGH INSERTION LOSS AND LOW ISOLATION DUE TO POOR CLEANING AND TIGHTENING OF THE PINS FROM RECEPTACLES J-17 AND J-18 AND INSUFFICIENT SOLDER USED TO MAKE CONNECTION FROM THESE PINS TO THE LOWER BOARD CIRCUIT LAMBS.</p> <p>CORRECTIVE ACTION-EQUIPMENT OPERATIONS PROCEDURE 330-87.1 WAS PUBLISHED, INITIATING A TESTING PROCEDURE OF RING COUPLERS DURING THE APPLICATION OF A COMPLEX WAVE VIBRATION. ACTION WAS TAKEN BY CONVAIR TO INCORPORATE SIX PROCEDURES INTO PLANNING PAPERS. A NEW HEAT SINK WAS DESIGNED AND FABRICATED.</p>							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	99-24-114 ANTENNA-WIRING	FAR 87-60019	13E 810310	ETR 13	YES NO		084017
<p>FAILURE MODE-STRUCTURAL. THE RFS SYSTEM CARRIER DEVIATION FAILED DURING COUNTDOWN. THE CARRIER DEVIATION DROPPED TO 2 DEG AT STAGE 2 PRESSURIZATION AND LIQUID OXYGEN TANKED. RF BONDING SHIELD AROUND THE PERIPHERY OF THE ANTENNA WAS NOT CONTRACTED PROPERLY. THE RFS DEVIATION WAS DUE TO POOR BONDING AT THE PERIPHERY OF THE ANTENNA, POD 1 AND THE HINGE SIDE OF POD 1 DOOR. FAILURE ALSO DOCUMENTED IN REPORT A481-0032/ P3-501-00-13 CAUSING COUNTDOWN ABORT AND RESCHEDULE.</p> <p>CORRECTIVE ACTION-REPEATATIVE DISCREPANCY REPORTS WERE ISSUED IN DEPT 771 BY DEPT 280-1 TO CHECK BONDING FINGER CONTACTS TO THE MISSILE TANK IN THE L/H AND R/H. PODS. A PLANNING CHANGE REQUEST DATED 20 MARCH 61, WAS SUBMITTED REQUESTING AN ADDED OPERATION IN THE POD DOOR AND FAILING INSTALLATIONS TO CHECK FOR METAL-TO-METAL CONTACT OF BONDING FINGERS TO TANK SKIN.</p>							

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SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
INSTRUMENTATION-A/B ANTENNA AND COUPLER	FTAB18/P4-102-00-08 DIPLEX COUPLER	COUNTDOWN	6A 370923	ETR-14 -18000	YES NO	
<p>FAILURE MODE-FAIL DURING OPERATION. OPERATION OF RF 1 AND 4 CAUSED TRACKING BEACONS TO BE FREE-RUNNING AND NO-60. TROUBLE WAS TRACED TO DIPLEX COUPLER FOR RFS 1 AND 4.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION. FAULTY DIPLEX COUPLER CAUSED RF INTERFERENCE WITH TRACKING BEACONS.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED. 150 MINUTE HOLD. 5 MINUTE RECYCLE.</p> <p>CORRECTIVE ACTION-REPLACED DIPLEXER.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE		SITE		PRI		VENDOR NAME	
			DATE	DIP	TIME	DIP	OTH	VENDOR	PART NO	